

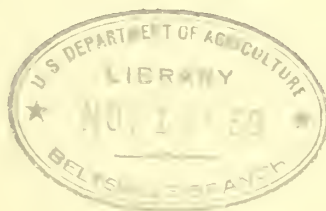
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7 Feb
VOL. IV, No. 3
March 1940

Foreign Agriculture

*..... a Review of Foreign
Farm Policy, Production,
and Trade*



Issued Monthly by
UNITED STATES DEPARTMENT OF AGRICULTURE
OFFICE OF FOREIGN AGRICULTURAL RELATIONS

WASHINGTON, D. C.

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THE RUSSIAN PEASANT HOUSEHOLD UNDER THE MIR AND THE COLLECTIVE FARM SYSTEM

By Lazar Volin*

Collectivism in one form or another is not a new phenomenon in Russian agricultural economy. Today it is the kolkhoz, the collective farm, that dominates the Russian agrarian scene; formerly it was the much looser mir. A comparison between these institutions naturally suggests itself to the historically minded student or observer of Russian agricultural conditions. What, if anything, had these institutions in common? What are the most striking differences? What has been the position of the peasant family under each? What has been their effect on agricultural technique? These are the questions that are posed and that the present article attempts briefly to answer.

No other institution of the nineteenth century Russian rural society was so much in the spotlight of public attention and controversy, scientific and political, as the Russian land commune - the mir or *obshchina*. No other institution was so much idealized or so much disparaged; none had so many friends or so many enemies in all political camps - conservative, liberal, and radical alike. Today the traditional Russian mir, which so recently pulsated with life, is dead, replaced by a more thorough-going collectivism.

As a result, while it was formerly an object of intense interest on the part of scholars in diverse fields, economists, sociologists, and students of law, as well as historians, the mir today is relegated entirely to the post mortems of historical research. Such research, however, can not only render valuable service to a general historical knowledge but also contribute through comparative analysis to a better understanding of contemporary Soviet agrarian collectivism. I propose to attempt such a comparison in a tentative and necessarily sketchy fashion from the standpoint of the peasant household as the social unit naturally closest to the individual.

What were the essential characteristics of the mir system of Great Russia as it existed in the nineteenth century? In the first place, the title to the land was vested in the mir, which, as a type of rural organization, was carried over from serfdom by the emancipation legislation of the 1860's. The mir usually consisted of former serfs and their descendants settled in a single village, although sometimes a village included more than one mir and, conversely, several villages sometimes constituted a single mir.

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In the second place, members of the mir possessed equal rights to allotments of separate family holdings, which were individually cultivated. Moreover, the peasant household always held the home and kitchen garden in hereditary possession. Thus, except for common pasture and sometimes meadows and forests, there was no joint or cooperative farming of the mir land as a unit, but family peasant farming. In the third place, as a consequence of its collective tenure, the mir had the power to repartition the land from time to time among its constituent households on some uniform basis. There we have the outstanding peculiarity of the mir system. At first the Government did not interfere with repartitions, but in the 1890's these were subjected to certain restrictions and placed under a strict administrative supervision.

The repartitional mir type of land tenure predominated among peasants of Great Russia and Siberia, while in the Ukraine and other western Provinces the peasant family had its holding as a rule in hereditary possession, and not in temporary possession at the discretion of the mir. Approximately three-fourths of all peasant households in European Russia (exclusive of Congress Poland and Finland) held about four-fifths of the "allotted"¹ land in repartitional tenure, and the rest was held in hereditary tenure, according to official data on landholdings in 1905.

The basis on which land repartitions were made by the mir and their regularity or frequency varied from region to region. Not all mir communes repartitioned their land at regular intervals and some did not repartition at all, although the power to do so remained and was, in fact, increasingly wielded with the growth of population. For instance, a study of data for 6,830 mir communes in 66 scattered districts of European Russia indicated that, whereas in the 1830's 65 percent had practically not repartitioned their land, during the period 1897-1902 only 12 percent failed to do so; 59 percent repartitioned largely on the basis of the number of males in a family, 3 percent on the basis of working adults, and 19 percent on the basis of the total number in each family and its working power. Moreover, 2 percent practiced partial repartitions.²

Blood relationship was not a basic factor in the modern Russian mir as it is in the *zadruga* of the southern Slavs, although some students have traced its genesis also to just such a family organization, while others have denied any historical affinity. However, the highly controversial problem of the origin of the mir,³ the

¹ Land held by peasants, whether in repartitional or in hereditary tenure, constituted a separate category of the so-called allotted (*nadeľ'naja*) land, i.e., land allotted to the peasants after the emancipation from serfdom in the middle of the nineteenth century and subject until 1907 to redemption payments. Such allotted land, even when held in hereditary tenure, was hedged by legal restrictions that distinguished it from land held as individual property in fee simple. The latter type was owned during the second half of the nineteenth century predominantly by the nobility and less so by business classes and corporations, but peasants were also purchasing such land. According to official data in 1905, there were in 50 Provinces of European Russia about 275 million acres of land owned in fee simple (of which peasants owned individually or cooperatively over 66 million acres) and 375 million acres of "allotted" peasant land.

² Veniaminov, P., *Krestianskaja Obshchina* [peasant commune], St. Petersburg, 1908, pp. 119-121; based on material collected by K. P. Kacharovskii.

³ The Russian literature on the subject of the mir is enormous. For valuable bibliographical material, consult E. I. Iakushkin, *Obychnoe Pravo* [customary law], issues I, 1875; II, 1896, and III, 1908. Iaroslav and Moscow. See also a list of references given by the late Professor A. A. Kaufman in his article, "Sel'skaja Pozeml'naja Obshchina," in the Russian encyclopedic dictionary published by Granat Co., ed. 7, v. 38.

question of how ancient it was, to what extent it was affected by the intervention of the State and landowners prior to the abolition of serfdom in the 1860's are outside the scope of this paper.

Certain administrative and municipal functions of the mir need not detain us, but one task assigned to it was far too important to be left unnoted. This was tax assessment and collection under the principle of joint unlimited liability of all members of the mir. The mir, therefore, was not only an institution of repartitional land tenure but equally an organ of fiscal administration.

The imprint left by the fiscal factor on Russian agrarian history, and especially on the emancipation reform that abolished serfdom in the middle of the nineteenth century, is well known. How the peasants were burdened with heavy redemption payments for the land allotted to them and how these payments, together with taxes, sometimes exceeded the income from the land is a story that has often been told.⁴ The primary task imposed on the mir by the Government was to make the Russian peasantry bear this heavy fiscal burden; and from this fact stemmed much of the land-repartitioning and equalizing activity of the mir, as well as many of the fetters on the personal freedom of the peasant that remained after the emancipation and that legally set him apart from other, more privileged, classes of the community.

With land distribution and tax collection, the important functions of the mir came to an end. Not the mir but the peasant household was the actual farm unit. It owned or hired draft power and implements, performed all the farm operations on the land allotted to it, and disposed of its product on a free market, without hindrance - if it had anything to dispose of. The peasant household was the actual unit of land allotment and had a voice through the head of the household in the governing body of the mir. The mir dealt with the household, not with the individual. We shall have to bear in mind this position of the peasant household vis-a-vis the mir when we discuss the *kolhoz* (collective farm).

There were, of course, various limitations on the independence of the peasant farm unit under the mir. Thus, the landholding could be changed both in size and in location by the mir, through either partial or general repartition. The allotted land could not be sold, mortgaged, or inherited by the peasant household. The latter, moreover, could not refuse to accept a holding allotted by the mir, as it was sometimes tempted to do when the income from the land was less than the various payments due. In other words, the right of the peasant household to be allotted a landholding entailed a correlative duty to accept an allotment.

There was also the very serious limitation on the independence of the peasant household arising from a compulsory cropping system, due to the unenclosed, scattered character of the holdings, consisting of a number of narrow strips, intermingled in each field with strips of other holdings. Such a system, coupled with the use of the stubble for common pasture, made the planting in any particular field of crops with a

⁴ For an excellent account of the Russian emancipation reform by an American scholar, see G. T. Robinson, *Rural Russia under the Old Regime - A History of the Landlord-Peasant World and a Prologue to the Peasant Revolution of 1917*, New York, 1932.

different growing season and maturity practically impossible. The division of fields into strips under the mir had the definite purpose of equalizing the holdings with respect to quality of the soil, topography, distance from the village, etc. The strip system, however, was characteristic not only of the mir but also of hereditary peasant tenure prevailing in certain sections of Russia. As a matter of fact, it was convincingly argued that under hereditary tenure the evil of scattered strip holdings was even less easily remediable than under the mir system, where excessive scattering of the strips usually led to a general repartitioning of land.⁵

As could be expected, arrears in the payment of taxes led to the greatest intervention on the part of the mir in the affairs of individual households. To insure payment, the mir could hire out a member of the defaulting household, could sell the household's movable property, could take away the holding, or could remove the head of the family, appointing in his place a different member of the household.⁶

Removal of an individual as head of a peasant household could also be done for other reasons. Thus the head of the household was but an administrator, removable by the mir, though an administrator with easily and frequently abused autocratic powers while at the helm. This position of the head of the household demonstrates not only the power of the mir but also the tremendously important fact of the joint family ownership of the property of a peasant household.

The institution of family property among Russian peasants owes its origin to custom, which was recognized and preserved by the courts, as well as by the emancipation legislation. It had disadvantages, as well as advantages, for the individual. For instance, all his earnings from whatever source, if he was not legally separated from the household, were supposed to go into the common pool⁷ - a serious matter considering the prevalence of migratory work in the overpopulated Russian village. Even peasants who had long lived and worked away from the village were often forced to continue their contributions to the household of which they legally remained members. The weapon here was the famous Russian passport, which hung like the sword of Damocles over the head of any peasant who wanted to leave his native village. For to receive or to renew the much-coveted passport, he had to obtain the permission both of the head of the household and of the mir.

But the traditional Great Russian peasant family, zealously guarded by the master for economic reasons during the period of serfdom, began to feel the disintegrating impact of individualism immediately after the emancipation. This was manifested in numerous family divisions, in spite of the undisputed economic advantages possessed by a large peasant family. In the 1880's the Government became so alarmed over the adverse effects of family divisions that it tried to restrict them by law.

⁵ Pavlovsky, George, *Agricultural Russia on the Eve of the Revolution*, London, 1930, p. 83.

⁶ Leontiev, A. A., *Krestianskoe Pravo* [Peasant Law], St. Petersburg, 1909, p. 201.

⁷ The earnings of women were excepted, but they were supposed to provide their own clothes and dowry for their daughters. This explains the paradoxical fact that peasant women, with their notoriously inferior status, had personal property rights denied to men. For evidence from different sources on this point, see A. F. Melendorf, *Krestianskii Dvor* [Peasant Household], St. Petersburg, 1909, pp. 6-9.

Such restriction, however, was unavailing and served only to provide an additional source of vexation to the peasant. It is hardly surprising that the mir system as it existed in reality seemed to its critics an extension or projection of the old servile order rather than an embryo of the socialist commonwealth, as was envisaged by the early Russian non-Marxian socialists, the *Narodniki*.

The view of the mir as a germ of socialist development was staunchly opposed by the younger school of Russian socialists, the Marxists (among them Lenin, the father of bolshevism), who came to the fore in the 1890's and who accepted and applied to Russian conditions the orthodox Marxian dogma imported from Western Europe. The mir, according to Marxists, only retarded but did not prevent the inevitable evolutionary development that doomed small-peasant farming, as it did all small-scale production.

On the other hand, the mir fell out of favor with conservatives, who had, prior to the revolution of 1905, looked upon it as the bulwark of law and order in the village. They blamed the mir for keeping alive the idea of general repartitioning of all land, the so-called *chernyi peredel*, which inspired the rising of the peasantry against the landlords and the State. Moreover, the opinion, not new in itself, that the mir with its repartitions and scattered strip system was a serious obstacle to agricultural progress gained increasing adherence in conservative and official circles.

The Government wanted to create a new class of individual peasant proprietors who would form a barrier against agrarian revolution and who could also utilize the advantages of an improved agricultural technique, for which the strongly fostered consolidation and segregation of scattered strip holdings paved the way. Finally, with the abandonment of the joint liability of the mir for taxes and the discontinuance of redemption payments, the mir was no longer needed as an organ of fiscal administration. Hence, the famous Stolypin laws, with their slogan of the "wager on the strong," attacked the mir and, in the same sweep, the institution of the peasant-family property. They also removed some of the legal disabilities of the peasants.

This legislation and the tendency toward the individualization of Russian peasant agriculture that it ushered in cannot be dealt with in detail.⁸ It is necessary, however, to point out that history seems to have confirmed the incompatibility of the coexistence of two systems of land tenure based on such fundamentally different principles as the repartitional mir tenure and the system of individual private property in land held in fee simple. This was a dualism that the Stolypin laws tried to break down, but it was destroyed, in a different way, by the revolution of 1917-18. For the revolution struck a death blow to private property in land and at the same time gave the mir a fresh lease on life. The mir, as a matter of fact, was an active instrument of the revolution in the agrarian sphere, since it helped to carry out the partition of estate land among peasant cultivators.

⁸ This subject has been admirably treated by Professor G. T. Robinson, *Op. Cit.*, ch. 11.

The ties that bound the individual to the peasant household, and both to the mir as it emerged from the turmoil of the revolution and War Communism into the brief breathing spell of the regime of so-called New Economic Policy (NEP), were looser than in the old mir. The sweeping sway of the landlord, the partial restoration of the free market - which had been legally abolished during War Communism - and the retention of various limitations on the development of capitalistic farming (the prohibition of the sale or mortgage of land, which legally remained nationalized, steep taxation, etc.) made the NEP period the heyday of very small peasant-family agriculture. The number of peasant households, in fact, showed an extremely rapid growth from some 16 million before the revolution to over 24 million in 1923.

I shall not dwell upon the ensuing economic recovery or upon the inefficiencies of the petty holdings, for the multiplication of which the Kremlin's hostile policy toward the economically stronger elements of the peasantry was partly responsible. For, just as the Stolypin laws⁹ were but an episode between the two revolutions of 1905 and 1917, so was the NEP but an interlude between the early Soviet War Communism and the intensified collectivism of the Five-Year Plan.

The process of collectivization of Russian peasant agriculture was not carried out by the Kremlin via the mir as it might have been.⁹ On the contrary, by a Government decree of July 30, 1930, the mir was to be liquidated in the Russian Soviet Republic (the largest of the constituent republics of the Soviet Union) if not less than 75 percent of the peasant households had been collectivized. The rights and functions of the liquidated mir were to be transferred to the village soviets. By a subsequent decree in 1931, requirements for liquidation were lowered to 68-70 percent of collectivized poor and middle-class peasant households (*i.e.*, exclusive of the *kulaki*) including not less than 75-80 percent of the peasant-sown area.¹⁰ In view of the speedy, wholesale collectivization,¹¹ the liquidation of the mir throughout the country may be accepted as an accomplished fact.

Thus, by collectivization, the Soviet rulers brought rapidly to an end the time-honored institution of the Russian peasant mir, the demise of which, it will be recalled, had been sought two decades earlier by the Czarist government in the name of individualization of Russian peasant agriculture. It is at least open to doubt, however, whether collectivization could have been effected so speedily, even with the liberal use of force, if the mir system had not hindered the crystallization of a concept of stable individual property right in land among the Russian peasantry. There is good reason to believe, therefore, that, in spite of the Bolsheviks' hostility and contempt for the mir, their agrarian collective system is indebted to it.

⁹ See an interesting defense of the mir under Soviet conditions by a well-known economist and publicist, N. I. Sukhanov: "Obschina v Sovetskom Agrarnom Zakonodatel'stve," [The Mir in Soviet Agrarian Legislation], *Na Agrarnom Fronte*, No. 11-12, 1926; also the reply by M. Kubanin in the same publication.

¹⁰ Collection of Laws and Decrees of R.S.F.S.R., Part I, No. 51, item 621, Dec. 6, 1930, and No. 65, item 465, Nov. 10, 1931. [in Russian]

¹¹ In 1928 only a little over 400,000 peasant households out of an estimated total of 24.5 million were collectivized; in 1932 the figures were, respectively, 14.9 million and 24.2 million. By 1938, 18.8 million peasant households out of a diminished total of 20.1 million were in 242,400 collective farms. For a detailed discussion of the problem of collectivization, see L. Volin's "Agrarian Collectivism in the Soviet Union," *Journal of Political Economy*, October and December 1937.

We saw that under the distributive collectivism of the mir organization the peasant household was the keystone of the farm system. Now, what is its position in the integrated collectivism of the modern *kolkhoz*? First of all the *kolkhoz* and not the peasant household is the basic farm unit, carrying on, often with the help and supervision of the State machine-tractor station, the actual farming operations. The peasant household plays a decidedly subordinate, although as we shall see later by no means a negligible, role in the economic life of the collectivized village.

The *kolkhoz*, unlike the mir, deals primarily not with the peasant household but with the individual peasant worker, man or woman, who is entirely independent of the family in his work relations with the collective. The worker is assigned to a brigade, or more recently to the smaller unit *zveno*, into which the labor force of a *kolkhoz* is subdivided. For his work on the collective farm the peasant is credited with the so-called *trudodni*, or "labor days," which are arbitrary units forming the basis for calculating his eventual income in kind and in money. There is no guaranteed minimum wage; but, according to a recent decree of the Kremlin aimed at tightening working discipline in the collectives, there is required a certain minimum of "labor days" (60-100 per year depending upon the region), which the able-bodied adult must earn or face expulsion from the *kolkhoz*. This provision applies to each member separately, irrespective of sex, and not to the peasant family as a whole.

In general, then, the relation of the peasant to the *kolkhoz* differs fundamentally from the relation of the peasant farmer to the mir and resembles that of a worker to a factory using a system of payment by results (piece work). It differs, however, from the position of the Soviet factory worker in that the latter, even though a piece worker, receives a money wage at regular intervals instead of being credited with a number of "labor days," the actual value of which is uncertain until the end of the crop season, or even later. For the peasants are residual claimants to the income of the collectives and are paid only after the satisfaction of the claims of the State, the defrayal of current expenses, and the appropriations to reserves, all of which, as we shall see later, often leaves little for distribution and are matters in which the average member of the *kolkhoz* in practice has little or no voice.

Thus the collective farmer has neither the advantage of a relatively certain income that the Soviet industrial worker possesses nor the degree of independence of the small peasant farmer. Having said this, I must enter some exceptions. A young peasant, who may have been merely a cog in the family farm system, may perhaps be somewhat more independent in the collective farm. Certainly he is likely to be if he joins the ranks of skilled workers - tractor or truck drivers, combine operators, and the like. Such opportunities for skilled occupations, formerly rare in Russian agriculture, have greatly increased with the collectivization and mechanization of farming and have continued to grow, as can be seen, for instance, from the increase in the number of tractor drivers and combine operators from 235,000 and 11,000, respectively, on January 1, 1934, to 870,000 and 125,000 on June 1, 1938.¹² The frequent publicity given in the Soviet press to the large earnings of such

¹² *Pravda*, Aug. 13, 1939. These figures do not include state farms, or *soukhozy*, which had 68,800 tractor drivers and 22,000 combine operators in 1938.

skilled workers must be set against equally frequent reports of a large turnover among them, due to long arrears in the payment of wages and unsatisfactory working conditions. Still the fact of the increasing technical training of the peasant youth cannot be gainsaid. This, incidentally, applies not only to young men but also to young women, a number of whom are being trained as tractor drivers and combine operators to replace men in a war emergency. When Stalin said that "labor days" on collective farms emancipated the peasant woman,¹³ he was probably closer to the mark with regard to the young unmarried woman than the married woman who is burdened by the care of a family and is also required to work on the collective farm.

Another exception to what was said concerning the loss of independence by the peasants is furnished by the poorest households of the precollective era, especially households that lacked livestock and implements. Some semiproletarian peasants, who constituted in some regions a third or more of all peasant families, had little to lose but their poverty on entering the *kolkhoz*.

It is probably true, however, that for the mass of collectivized peasantry there was some real loss of independence, even remembering the limitations of the mir system. Perhaps nothing symbolizes the new dependence on the collective organization so much as the fact that the collective farmer who requires a horse for his personal needs must hire it from the *kolkhoz*, which actually means from the *kolkhoz* management, which can use, and often abuse, discretion in the matter.

But has the peasant acquired a status of greater security or greater privilege of self-government in the *kolkhoz* than in the mir? Whatever the case may be theoretically, actually the answer is in the negative. The history of collective farming is one long record of the insecurity of the peasant family. Expulsion from the *kolkhoz*, which often, as the Kremlin itself has publicly admitted, entails starvation,¹⁴ always stares the collective farmer in the face. On occasions, as during the Great Purge of 1937-38, expulsions have assumed epidemic proportions.¹⁵ It is true that from time to time, and notably in 1935 when a new collective charter was adopted, legal safeguards have been erected against arbitrary expulsions; but for the most part, they have failed in their objective. In practice, then, the ties that bind the peasant to the *kolkhoz* seem less stable than those that bound him to the old mir, and in neither case to his advantage. Incidentally, the passport system, as it was established in 1932, again made it possible as in the days of the old mir, to restrict the freedom of movement of the peasants. For the issue of passports permitting residence in specified areas (large cities, industrial centers, etc.) is left to the discretion of authorities.

In theory, the governance of the *kolkhoz* is more democratic than that of the mir, since the governing body consists not merely of the heads of the households but

¹³ At the reception given to "shock" collective woman sugar-beet workers on Nov. 10, 1935.

¹⁴ See Decree of the Council of Peoples Commissars of the U. S. S. R. and of the Central Committee of the Communist Party of Apr. 19, 1938, entitled "Concerning the Prohibition of Expulsion of Collective Farmers from Kolkhozy," published in *Izvestia* and *Pravda* on Apr. 20, 1938.

¹⁵ This matter is discussed in an article by L. Volin, "Effects of the Drought and Purge on the Agriculture of the Soviet Union," *Foreign Agriculture*, May 1939.

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of the whole membership. Moreover, the mir was often, and rightly, criticized for being the tool of the well-to-do peasants (*bulaki*) and the Government functionary (*chinovnik*). But the self-government of the *kolkhos*, is, if anything, even more of a fiction. The promulgation in 1935 of the new charter aimed to remedy this situation by insuring the elective character and a degree of security of tenure of the officers of the *kolkhos*. These officers were, in fact, frequently appointed and removed by the Soviet officials at will and had to do their bidding. Naturally there was little official respect for the property or other rights of the collectives. Yet the new law, which was hailed as the Magna Charta of collective democracy, has also been continually violated, often in the most flagrant fashion, according to numerous reports from Soviet sources. The officers of the collectives have remained the tools of the Soviet bureaucrat, just as the officers of the mir were the tools of the Czarist *chinovnik*, and the peasant remains in their grip. Still, today he has a much better prospect of entering the ranks of officialdom (as well as being purged from it) than under the Czarist regime.

As a matter of fact, Government interference in the affairs of the *kolkhos* is, if anything, much more active and minute than it was in the mir. So long as the mir paid the taxes, the Government as a rule was little concerned with its internal economic life. It is true, of course, as mentioned before, that toward the end of the nineteenth century administrative regimentation increased and began to be extended even to such economic matters as household divisions, repartition of land, and the like. It was, however, a far cry from the detailed control exercised over the working life of the *kolkhos*. There is hardly a question within the whole gamut of farm management and practice, whether of crop rotation or cultural methods, of remuneration of labor or its most effective division, that does not now come within the range of Government control and attention.

Stalin stated most clearly the whole theory of state control of collective farming when he pointed out in January 1933 in a speech on "The Work in the Village" that the function of the Bolsheviks did not end merely with organizing the *kolkhos*; that, just because they were more complex farm units, collectives required increasing guidance and planning; and that the ever-present danger of anti-Soviet elements boring from within necessitated the constant vigilance of the Bolsheviks. Uncontrolled peasant collectivism is as much politically suspected by the Soviet rulers as it was by the Czarist Government in the case of the mir.

Thus, however we may view a *kolkhos* - whether as a state organized and controlled producers' cooperative or as a form of collective share tenancy with the state acting as the landlord - the essential fact to bear in mind is that it must function within the framework of a centralized planned state economy.

A foremost objective of Soviet Five-Year Plans has been to bring about a technical revolution in agriculture as in industry with a view to expanding production. Here is another contrast with the mir, which, although sanctioned and long protected by the State, was nevertheless a precapitalist survival in an increasingly capitalistic world. Hence it will be recalled that, when the Czarist Government in the early years of the present century became seriously concerned with agricultural

progress, an added motive arose for destroying the mir, which was considered from a capitalistic standpoint an obstacle to progress. On the other hand, improvement of agricultural technique was at the root of Soviet collectivization with its consolidation of the numerous small scattered strip holdings into larger fields and its emphasis on scientific farming.

In this mission the Kremlin acquired a valuable ally in the tractor. Not only has it been the spearhead of technical progress in Russian agriculture, in spite of much inefficiency in utilization, but it has also provided a powerful weapon for strengthening Soviet control over collective farming as well as an increasingly valuable source of revenue from payments in kind by collectives for their work. For the Government owns all the tractors, combines, and other machinery, concentrated in over 6,000 State machine-tractor stations. These, in addition to servicing more than two-thirds of all collectives,<sup>16</sup> constitute the backbone of local agricultural planning and administration. And the peasants, by slaughtering their horses during the early years of collectivization, made the tractor more vitally necessary - thus unwittingly helping the cause of agrarian regimentation to which they were opposed.

The old mir knew no such powerful centralizing weapon as the tractor to transform its distributive land collectivism into a more integrated large-scale farming type, as many of the Russian non-Marxian socialists hoped might be done. Interestingly enough, one of the earliest and ablest defenders of the mir, the famous Russian publicist Chernyshevsky, believed that machinery would facilitate the development of cooperative farming in the mir and pinned great hope on the steam plow.<sup>17</sup> But as it turned out, it was the application of the internal-combustion engine and not of the steam engine that did the trick; in the meantime the mir had gone with the wind in the process.

The improvement of farm technique under collectivization was closely linked with the central objective of the Kremlin's agrarian policy to secure an uninterrupted flow of the growing requirements for cheap farm products for the State. And, while there is abundant evidence that the system of bureaucratic regimentation with its faults accentuated by successive purges is not conducive, and is even detrimental, to agricultural efficiency,<sup>18</sup> it undoubtedly greatly facilitated the task of procuring supplies from the peasants, who proved so refractory prior to collectivization. The claim of the State to its share of the output of collectives takes precedence over everything else and is, according to Stalin, the "first commandment" of the collective farmer, to which obedience has been ruthlessly exacted. As a result, the Soviet Government through the combined power of taxation, price fixing, monopoly of ownership of tractors and other machinery (in which, however, considerable investment was made), and direct control over collective farming has been able to procure mounting quantities of farm products at low prices. It increased, for

<sup>16</sup> At the end of 1936 when there were 5,000 machine-tractor stations, they serviced 67 per cent of all collective farms. *MTS i Kolkhazy v 1936 godu* [Machine-Tractor Stations and Collectives in 1936]. The figure for collectives serviced was undoubtedly larger in 1939.

<sup>17</sup> Article on land tenure in the magazine *Sovremennik*, No. 9, 1857. Reproduced in *Polnoe Sobranie Sochinenii* [Collected Works of N. G. Chernyshevsky], St. Petersburg, 1906, III: 477-480.

<sup>18</sup> Cf. *Foreign Agriculture*, May 1939. *op. cit.*, pp. 189-190.

instance, its vitally important grain collections from less than 12 million short tons in 1928 to 32 million tons in 1937, obtaining the great bulk of this quantity from collectives. Without this advantage it is highly doubtful whether the Kremlin could have carried out its ambitious industrialization program of the Five-Year Plans. Thus the *kolkhoz*, no less than the *mir*, is, in its own way, a fiscal hand-maid of the State, from which the latter has derived considerable economic benefits.

But, it will be asked, what economic benefits have accrued to the collectivized peasant family? That the peasant masses benefited during the early years of collectivization, ruthless "liquidation" of the *kulaki*, and famine, I take it, no objective student will maintain. For more recent years, unfortunately, reliable statistical evidence on this important subject is meager and, at best, fragmentary in character. There have been frequent reports in the Soviet press of the so-called millionaire collectives, whose revenues run into millions of rubles, as well as of the large incomes of individual *Stakhanovists* (pacemakers) and their predecessors the "shock" workers. It is not so easy to obtain data in which one can have confidence on the incomes of the large mass of the common garden variety of collective farmers, who are paid partly in cash but mostly in kind. A revealing light on the subject, however, is shed by published figures on cash payments per labor day,<sup>19</sup> in 221,029 out of over 240,000 collective farms in 1936 and 1937, of which the first was a year of poor crops and the second one of excellent yields. These show that in both years more than 60 percent of the collectives distributed not over 60 kopecks (12 cents in United States currency at the overvalued legal par of exchange) and many much less. While a minority distributed more, some paid nothing.<sup>20</sup>

How low these figures are can be appreciated better in the light of the well-known fact of the chronic shortage of manufactured goods and their high prices in the Soviet Union. It is highly significant that the low cash distribution to collective farmers provoked strong official condemnation in the spring of 1938. It was charged particularly that excessive administrative and other expenditures and unrealistic enthusiasm of the officers of collectives for capital improvements, abetted and encouraged by the authorities, left little for distribution among members.

More important than cash are payments in kind, principally in grain, which is, of course, the basis of the Russian diet. These fluctuate from region to region and from year to year, depending upon the variable crop outturn. In 1936 grain distribution in the above-mentioned 221,029 collectives averaged 1.6 kilograms (3.5 pounds) per "labor day" - a very low figure under Russian conditions; in 1937 it averaged the substantial figure of 4 kilograms (8.8 pounds). While no data are available for 1938 and 1939, it is well to bear in mind that climatic conditions, which largely determine the yields of crops and consequently affect grain distribution, were nearer in those years to the unfavorable 1936 than to the excellent 1937 conditions.

There is another aspect of the distribution of income in collectives that deserves attention. Whereas a large majority of collective farmers received less

<sup>19</sup> It is possible to earn in a day's work more than 1 "labor day," depending upon the nature of the task, etc. In 1937 a peasant household was credited, on an average, with about 440 "labor days."

<sup>20</sup> *Foreign Agriculture*, May 1939, *op. cit.*, p. 192; data from Rud, Dm., *Raspredelenie Do-khodov v Kolkhozakh* [Distribution of Income in Collectives], Moscow, 1938, p. 25.

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than 1 ruble (20 cents), and many of them much less, tractor drivers, for instance, were guaranteed a money minimum wage of 2.5 rubles per "labor day" - in addition to payments in kind that also included a minimum of 3 kilograms (6.6 pounds) of grain - and the opportunity to earn a large number of "labor days."²¹ Such a steep differentiation in the basic wage rates in favor of skilled workers, coupled with the reported large earnings of "shock" collective farmers and *Stakhanovists*, throws into sharp relief the question of economic stratification within the *kolkhoz*. It will be recalled that much was made by Marxist critics of the failure of the old *mir* to prevent economic or class stratification in the Russian village. But in the *kolkhoz*, even sharp economic inequality in the distribution of income has the official blessing so long as it stimulates productivity. Conversely, egalitarianism, *uranilovka*, as it is contemptuously termed in Soviet parlance, is deemed to have an adverse effect on productive efficiency and is, therefore, a *petit bourgeois* vice that has no place in the socialist economy of the *kolkhoz*.

Essentially, the economy of the *kolkhoz* is one of socialized production and individualism in consumption. It is true that a *kolkhoz* at its best performs certain welfare and cultural functions (maintains libraries, theaters, clubs, day nurseries, etc.) that come under the heading of communal consumption. In its present *artel* form, however, the *kolkhoz* is an institution primarily of production and not of consumption, which is left to the peasant household. In this respect the *artel* type of collective-farm organization differs from a completely communistic form, which is relegated, according to the Kremlin ideology, to the as yet distant promised land of plenty of full-fledged communism.

But the present economy of scarcity, which does not permit complete socialization until its transformation into an economy of abundance, according to the official ideology, is likewise responsible for a breach in the system of socialized production of the *kolkhoz*. As Stalin pointed out before the commission that drafted the model or standard charter of the *kolkhoz* in 1935: "If you do not have as yet in the *artel* an abundance of goods and you cannot give to the individual collective farmers and their families all that they need * * * then it is best to admit openly and honestly that a collectivized peasant household must have its own small personal farming."²² Hence, in addition to the basic large collective farm, each collectivized peasant family is supposed to have a little plot of land and a few animals of its own - a sort of "an acre and a cow" type of subsistence farming, though it may be a little more than an acre and less than a cow. Any surplus beyond their own needs the collective farmers have a right to sell on the limited local market (from which the middleman is legally tabooed) or to the Government. Thus the peasant household in the *kolkhoz* is not merely a consumption unit but also a farm-production unit of a sort and is recognized as such in the Soviet law.

²¹ Prior to 1939, the *kolkhoz* paid the tractor drivers of the State machine-tractor station both in cash and in kind. Since Jan. 1, 1939, the minimum cash wage has been paid by the State, while the *kolkhoz* is responsible for any difference that may occur between this minimum and a higher cash value of the "labor day" for its members and also for the payments in kind.

²² Nikitin, A. N., Pavlov, A. P., and Ruskol, A. A., editors, *Kolkhoznoe Pravo*, [Kolkhoz Law] Moscow 1939, p. 342.

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In theory, of course, the personal farming of the collectivized peasants is supposed to have a strictly supplementary character, subsidiary to the basic economy of the collective farm. In practice this economic dualism in the *kolkhoz* may, and does, result in competition and conflict between the collectivist and the individualist elements, which, according to the often-quoted dictum of Stalin, the *artel* organization of collective farming is presumed to reconcile so well.

Obviously, the smaller the return a peasant family receives from its work in a *kolkhoz*, the more it will tend to concentrate on its own personal farming, compensating for its small size by its highly intensive character. This is reflected especially clearly in such an intensive branch of agriculture as animal husbandry. It is significant that, according to official estimates in 1938, most of the livestock in the collectives, except horses, was in the individual possession of the collective farmers, although they planted only 13 million acres to crops as against 290 million acres of collective sowings.

The Kremlin's attitude, which since the promulgation of the new collective charter in 1935 had been favorable to the personal farming of the collectivized peasants, cooled noticeably after the Eighteenth Communist Party Congress in the spring of 1939. High Soviet officials, like Molotov and Andreev, complained at the Congress of the excessive development of such farming, which, according to Andreev, "began to outgrow the collectivized economy and became the basic part, whereas collective farming, on the contrary, became secondary."

Shortly after the conclusion of the Congress, the Kremlin issued a decree that aimed to curb the alleged illegal expansion of the personal farming of collective farmers.<sup>23</sup> It reiterated the requirement that the plots allotted to the farmers for their personal use should not exceed the limits specified for different regions in the 1935 charter, 0.6 to 1.25 (in some regions 2.5) acres per household. Accordingly, a new land survey in the collectives was ordered during the summer of 1939, and all land found to be in excess of the prescribed limit was to be confiscated. Likewise land allotted to those who had not worked continuously in the collectives was to be forfeited. Such land, however, could still be used for allotment to collective farmers having insufficient personal holdings. But plots, even if not excessive, allotted for personal use in the common fields of the *kolkhoz* were to be vacated and other land contiguous to farmsteads substituted. In general a careful demarcation of the common land of the *kolkhoz* from the area available for legitimate personal use of the collective farmers was decreed.<sup>24</sup>

<sup>23</sup> Decree of the Central Committee of the All-Union Communist Party of the Bolsheviks and Council of People's Commissars, of May 27, 1939, "On Measures for Safeguarding Common Collective Farm Land Against Squandering," published in *Pravda* and *Izvestia* on May 28, 1939.

<sup>24</sup> It is significant that this hard-and-fast division of the land of the *kolkhoz* into two distinct areas, the common collective and the personally held, is new. It is not to be found in the 1935 charter, which is the basic constitutional law of collectivized agriculture, adopted when a relatively liberal attitude toward personal farming of collective farmers prevailed in Soviet official circles. The charter, however, provided that, in order to combat the evil of instability of collective land tenure, the land of each *kolkhoz* (i. e., the whole area) was to be surveyed and a title deed issued, granting to the *kolkhoz* tenure in perpetuity in such land. Once the title deed was issued, no diminution, but only an increase, of the area was permissible. See "Agrarian Collectivism in the Soviet Union II," *Journal of Political Economy*, December 1937, p. 759.

The common land of the *kolkhoz* could be increased, but under no circumstances reduced, without the official permission of the Government and was thus protected against the dreaded encroachment of personal (*i.e.*, individual) farming. Where, as a result of these restrictive measures, a shortage of land available for allotment for personal use of collective farmers develops, emigration to sparsely settled regions was recommended. Collective farmers who had farmsteads outside of the village (the so-called *khutor*), as was often the case in the Ukraine, Belorussia, and other western regions, were to be speedily moved into the village, where presumably they would be easier to control. As was mentioned earlier, a minimum of days to be worked by each able-bodied member of the collective (not by each family) was set up, and those who fell below the minimum were to be expelled. Finally, the money tax levied on earnings of collective farmers from sources other than the *kolkhoz* (personal farming, handicrafts, etc.) was considerably increased.

These measures and the jeremiads that preceded them serve to underline the fact that the peasant household, although shunted to an inferior place, still remains a rival of the *kolkhoz* in its present *artel* form of organization.

## FINLAND'S AGRICULTURE . . . . .

By P. G. Minneman\*

*Recent hostilities have focused attention on Finland and have raised numerous questions as to its agricultural and economic position.<sup>1</sup> Finland is essentially an agricultural country of small owner-operated dairy farms surrounded by forests. The area of the country is about 150,000 square miles, with a population of over 3.8 million. In size and shape it resembles the State of California, but its population is only about two-thirds as large as that of California. Finland is as far north as Alaska, or the southern part of Greenland, but the climate is more nearly comparable to that of northern Minnesota. Nearly three-fourths of the country is covered with forest, and only 10 percent of the land is used for agricultural purposes. Crop and livestock production have increased remarkably in recent years and the country is now about 90 percent self-sufficient agriculturally. The principal exports are forest and dairy products.*

*United States exports to Finland have recently amounted to about 12 million dollars annually, of which agricultural products make up about one-third. Cotton, fresh fruit, dried fruit, and tobacco are the most important. The principal United States imports from Finland are forest products, such as paper and wood pulp.*

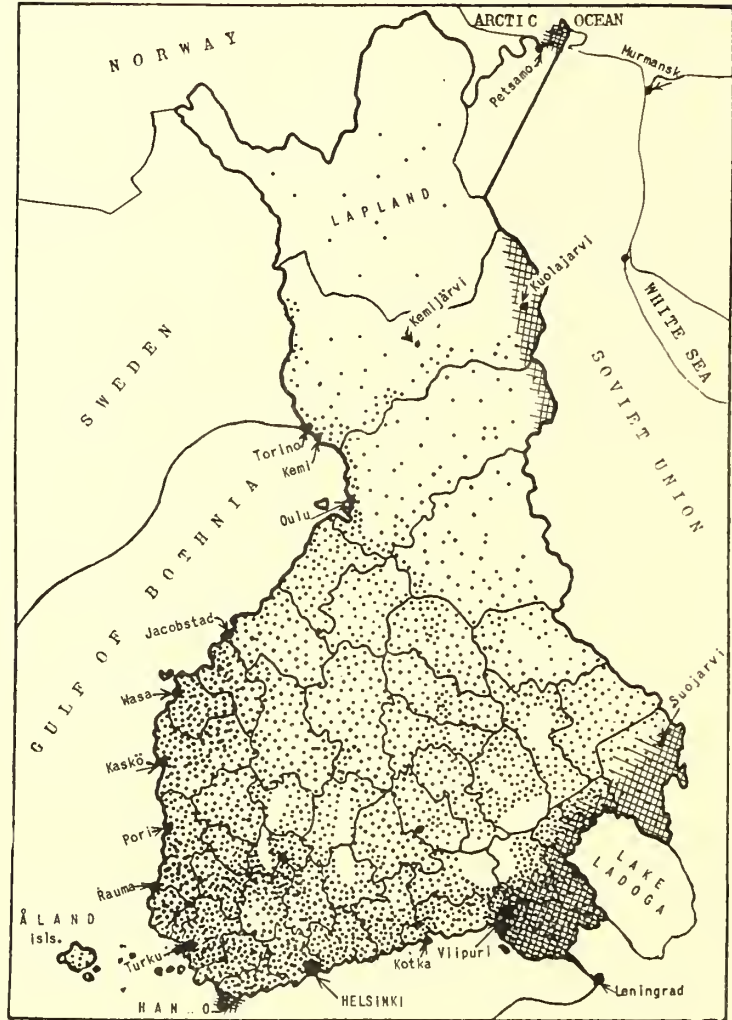
For over 650 years, from 1154 to 1809, Finland was under Swedish rule. Then for over a hundred years, from 1809 to 1917, it was a Grand Duchy under Russian sovereignty. In 1917 it declared its independence and was established as a Republic. The forms of government and the changes in sovereignty have each had their effect upon the development of the country. About 10 percent of the population, particularly along the west-central coast, still speak Swedish, which is a second official language. While under Russian rule, before the World War, crops could be obtained cheaply from Russia, with the result that production under the less favorable conditions in Finland was not encouraged. Furthermore, trade was largely with Russia, and the development of products for export to other countries was slow. Since its independence in 1917 the country has developed rapidly. Under Government assistance it is now nearly self-sufficient agriculturally, has greatly increased its industrial activity, and has greatly expanded its exports, especially of forest products.

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<sup>1</sup> Finland is officially called Suomi, which in the old Finnish language meant "swamp." Originally this name was applied only to the most swampy part of southwestern Finland.

Figure 1. - Distribution of rural population in Finland. (Each dot represents 1,000 people.)

The shaded areas are the approximate areas ceded to the Soviet Union under the peace terms of March 1940. Most important agriculturally is the Karelian Isthmus and the northern and western shores of Lake Ladoga. Altogether, the ceded area is estimated to represent between 12 and 15 percent of Finland's former agricultural production.



The 3.8 million population is concentrated largely in the southwestern part of the country, but the density of population for the country as a whole is about 25 per square mile, compared with about 42 for the United States. The largest city is the capital, Helsinki, with a population of only 278,000. About 80 percent of the people live in rural districts, and about 60 percent of the total population is engaged in agriculture. The following shows the distribution by occupations:

|                                   | Percent |
|-----------------------------------|---------|
| Agriculture and forestry .....    | 60      |
| Mining and industry .....         | 17      |
| Commerce and transportation ..... | 8       |
| Other .....                       | 15---   |
| Total .....                       | 100     |

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To understand Finnish agriculture it is necessary to consider the effect that the rigorous climate and the vast forests, interspersed with lakes and swamps, have had upon the life of the people during the centuries.

PHYSICAL CHARACTERISTICS AFFECTING AGRICULTURE

CLIMATE RIGOROUS BUT TEMPERATE

Finland is as far north as Alaska. One-third of the country is north of the Arctic Circle. Helsinki, on the southern coast, is in about the same latitude as the middle of Hudson Bay or the northern coast of Labrador. Yet Finland's climate is tempered by the southwesterly winds, which blow across the Baltic from the warm Gulf Stream Drift. Without this warming influence, Finland would be a land of almost continuous ice and snow.

The average annual temperature in southern Finland is about 40° F., in the central part 35°, and in Lapland 27°. The average temperature for the south is slightly above that of Duluth, Minnesota, which is 38° F. July is the warmest month in Finland, with an average temperature of about 60° compared with 64° in Duluth. Winter temperatures are also comparable to but slightly warmer than those in northern United States. The average January temperature in southern Finland is from 15° to 22° and in northern Finland from 7° to 13° (Lapland 5°) compared with only 8° in Duluth.

In general, the growing season in the south is about 210 or 220 days and in the north about 115 days. The spring begins late. Daily mean temperatures above the freezing point in southern Finland do not begin until after April 1, and in the north early in May. The following tabulation shows the approximate dates in spring when the daily mean temperature rises above freezing and above 50° F. and when it again drops below 50° and below the freezing point in the fall:

	RISES ABOVE		FALLS BELOW	
	32° F.	50° F.	50° F.	32° F.
Northern Finland	May 5	June 15	Aug. 10	Oct. 1
Southern Finland	April 1	June 1	Oct. 1	Dec. 1

During the winter, snow blankets the country for about 100 days a year in the south, 150 days in the central part, and 210 days in Lapland. The innumerable lakes are frozen over and converted into one continuous surface with the snow-covered plains. New and more direct road routes are established for the winter, and even the large number of islands near the coast are connected with the land. Ice closes most of the ports in the Gulf of Bothnia on the west and the Gulf of Finland on the south. In the northern and eastern extremities of these gulfs the water freezes more readily because the salinity is very much lower than it is nearer the ocean. The two main ports in southwestern Finland (Turku and Hanko) are usually kept open by ice breakers, and the port of Petsamo on the Arctic is open throughout the winter; however, the great distance from southern Finland to Petsamo precludes its being used to any great extent.

Precipitation averages from 25 to 27 inches a year. It is also comparable to that in northern Minnesota. Between 30 and 50 percent of the precipitation is in the form of snow. Toward the north precipitation decreases to 20 or 24 inches in the central part and to only 15 or 16 inches in Lapland. The spring is relatively dry, and the greatest precipitation usually occurs in late summer and early fall.

Although varieties of plants have been developed in Finland that are particularly adapted to short, cold seasons, the length of the growing season and the temperature largely limit the crops in the various parts of the country. Corn cannot be grown commercially at all in Finland. The northernmost limits of safe planting for various crops is shown in Figure 2. Note that winter wheat may be grown only in the southwestern corner of the country and along the shores of Lake Ladoga. Spring wheat may be grown throughout the southwestern half of the country. Oats and rye mature much farther north, and barley is still more resistant to the cold. Potatoes may be grown anywhere, even on the Arctic Coast. As one proceeds north in the country, grain crops generally give way to increased proportions of hay, pasture, and root crops.

Frost is the Finnish farmer's greatest danger. Even though days are long in summer, with about 50 days of continuous daylight, frost may occur, though rarely, at any time during the summer. To minimize the frost danger, farmers pay particular attention to air drainage and in forest areas clear their fields in the direction of the prevailing wind to insure that any breeze that would drain frost pockets may not be held back by adjoining forest.

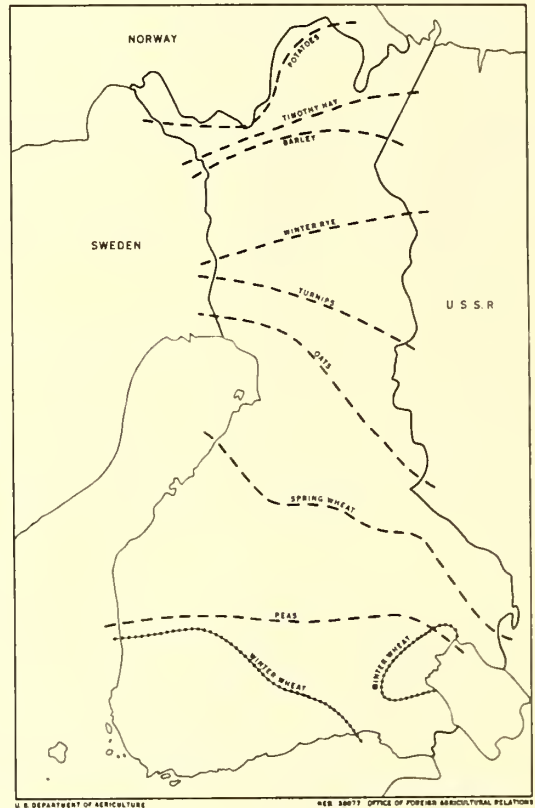


Figure 2.—Northern limits for growing various crops.

LAND OF 40,000 LAKES AND SWAMPS

Geologically Finland's bedrock is igneous, chiefly granite, gneiss, and chists covered with loose gravelly drift, moraines, clay, etc. Along the southern and western coast a strip of lowland extends as far as 75 miles inland and represents the maximum extension of the Gulf of Bothnia in recent geologic time. Inland from this coastal strip the central, northern, and eastern part of the country is essentially a poorly drained rolling plain with an elevation of from 300 to 500 feet. Glacial deposits and moraines contribute to the poor drainage and the large number of lakes, swamps, and bogs.



Figure 3.-The land of a thousand lakes and islands.
(By Werner Söderström Osakeyhtiö, Helsinki, 1932)

One writer refers to Finland as "amphibious." Lakes cover about 10 percent of the total area of the country, and swamps another 30 percent. Although all the lakes have not been counted, their number is estimated at about 40,000.

About one-half of the tillable land has clay soil and nearly one-third sandy and moraine soil; the remainder is of swampy mud, with some moss swamps. It is estimated that about one-third of all the clay soil in the country has already been cleared for cultivation.

FORESTS - THREE-FOURTHS OF THE COUNTRY

Only about $7\frac{1}{2}$ percent of the total land area of the country is tilled (see table 2). In addition, $2\frac{1}{2}$ percent consists of permanent meadows for hay and pasture. The total area used directly for agricultural purposes therefore amounts to only 10 percent of the total land area. Forests cover nearly three-fourths of the country. Finland has a larger percentage of land in forests than any other European country. They are second in size only to those of the Soviet Union and are more readily available to transportation and markets. The forest area is equivalent to more than 15 acres per capita.

"Green gold" is Finland's name for its forests because they constitute its principal wealth. About 80 percent of the country's exports consist of forest products, such as lumber, pulp, paper, and veneer. In addition, forests supply building

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material; fuel for homes, industries, and railroads; and profitable employment, full and part-time, for a large part of the population. Although varying widely, the income obtained by farmers from the forests through the sale of stumpage rights and from winter work is estimated to be about one-fourth of their total income.

Nearly one-half of the timber is Scotch pine and the remainder is principally Norway spruce and birch (see table 1). A few oak, elm, and maple trees grow in the southern part of the country, but are not of commercial forest importance. The annual forest growth amounts to about 2.7 percent and is estimated at 1,568 million cubic feet. The rate of cutting as a whole is about equal to the rate of growth.

About one-half the timber cut each year is used as raw material for the woodworking industry, as lumber, pulp, paper, etc. The following shows the proportion used for various purposes in 1927. Since that time the proportion used for pulp and paper has increased.

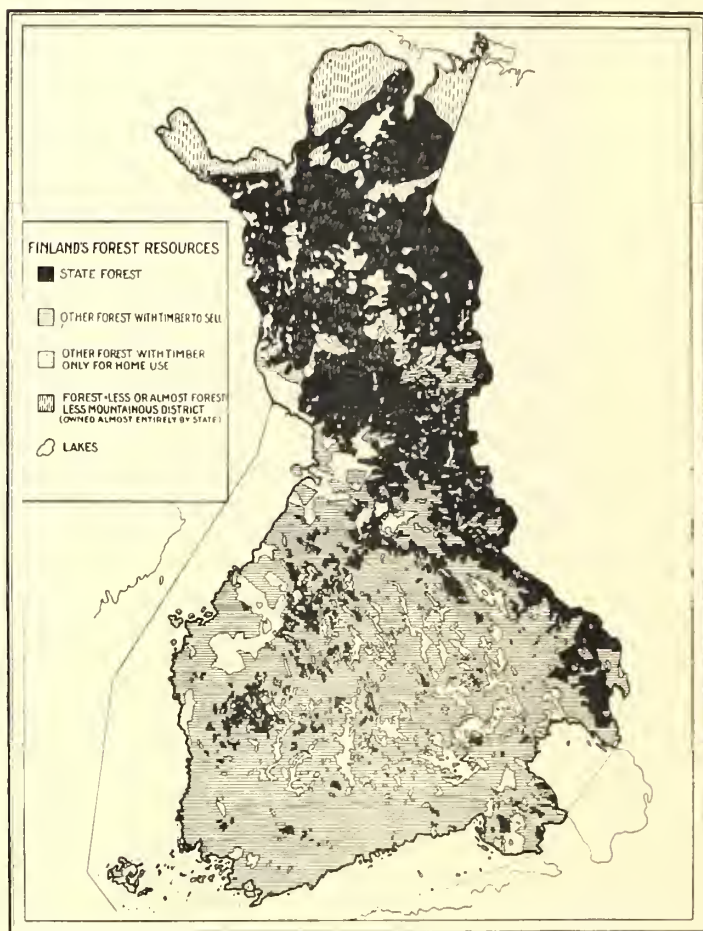


Figure 4. Finland's forests.

|                                                               | Million<br>cubic feet | Percent |
|---------------------------------------------------------------|-----------------------|---------|
| Used on farms, etc .....                                      | 452                   | 32      |
| Firewood for industry and<br>railways .....                   | 102                   | 7       |
| Exported as logs .....                                        | 152                   | 11      |
| Raw material for industry -<br>lumber, pulp, paper, etc ..... | 640                   | 46      |
| Other .....                                                   | 84                    | 4       |
|                                                               | 1,410                 | 100     |

A relatively large proportion is used for fuel even on railways, because Finland has no domestic supply of coal.

TABLE 1.—Finland's forest resources by kinds of trees

| KIND         | GROWING STOCK |              | ANNUAL GROWTH |              |
|--------------|---------------|--------------|---------------|--------------|
|              | QUANTITY      | DISTRIBUTION | QUANTITY      | DISTRIBUTION |
|              | : Million     | :            | : Million     | :            |
|              | : cubic feet  | : Percent    | : cubic feet  | : Percent    |
| Pine .....   | 27,452        | : 48.0       | : 696         | : 44.4       |
| Spruce ..... | 16,970        | : 29.6       | : 434         | : 27.6       |
| Birch .....  | 11,248        | : 19.7       | : 364         | : 23.2       |
| Alder .....  | 742           | : 1.3        | : 49          | : 3.2        |
| Aspen .....  | 802           | : 1.4        | : 25          | : 1.6        |
| Total .....  | 57,214        | : 100.0      | : 1,568       | : 100.0      |
|              | :             | :            | :             | :            |

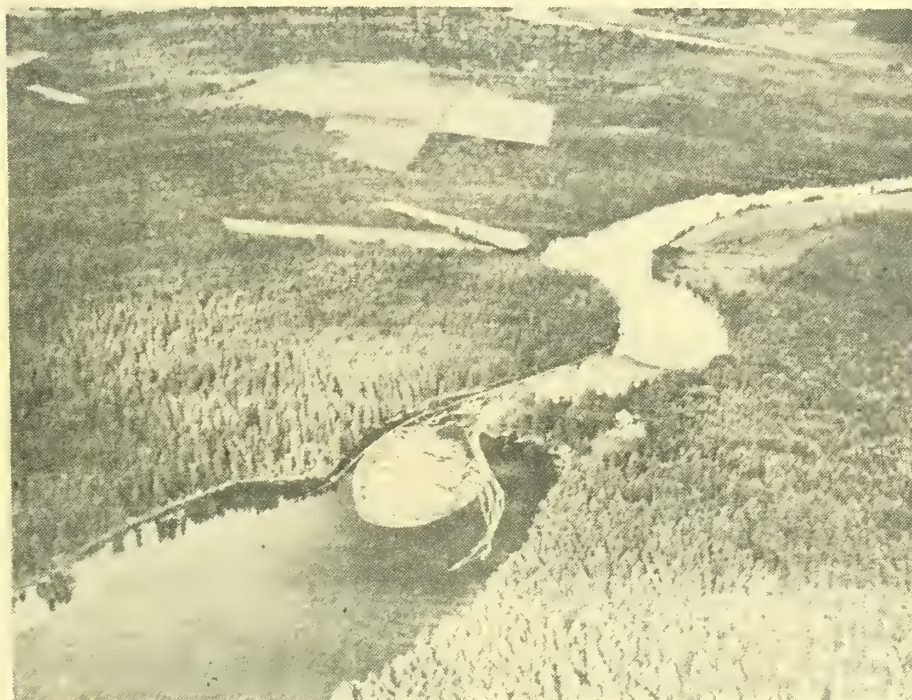


Figure 5.—Forests in southern Finland. Note the patches of cleared fields. (By Werner Söderström Osaakehtiö.)

Since 1542 the State has been a large owner of forests. About 40 percent of the total forest area, particularly in the northern and eastern part of the country, is now owned by the Government, about 51 percent is privately owned, largely by farmers, and about 8 percent is owned by companies. Laws specify that mature forests may not be cut unless provision is made to stimulate natural reforestation, and young growing timber may not be cut except for thinning the stand. Forest conservation boards inspect felling, administer legislation, and carry on extensive forest-improvement work.

Exports of forest products from 1936 to 1938 averaged the equivalent of about 150 million dollars annually, of which about one-half was in the form of lumber,

plywood, logs, etc., and about one-half in the form of wood pulp and paper. Finland supplies about one-third of the world's total exports of plywood and about 80 per cent of the world supply of bobbins.

TABLE 2.—*Land utilization in Finland, 1938*

| LAND USE                           | ACREAGE     | PERCENTAGE DISTRIBUTION - |             |
|------------------------------------|-------------|---------------------------|-------------|
|                                    |             | OF CROPLAND               | OF ALL LAND |
|                                    | 1,000 acres | Percent                   | Percent     |
| CROPLAND                           |             |                           |             |
| Grain:                             |             |                           |             |
| Oats .....                         | 1,143       | 17.9                      | —           |
| Rye .....                          | 583         | 9.1                       | —           |
| Wheat .....                        | 323         | 5.0                       | —           |
| Barley .....                       | 298         | 4.6                       | —           |
| Mixed grain .....                  | 25          | 0.4                       | —           |
| Total grains .....                 | 2,372       | 37.0                      | 2.8         |
| Forage crops:                      |             |                           |             |
| Hay .....                          | 2,865       | 44.8                      | —           |
| Pasture .....                      | 370         | 5.8                       | —           |
| Green feed .....                   | 37          | 0.6                       | —           |
| Roots and other feed .....         | 62          | 1.0                       | —           |
| Total forage crops .....           | 3,334       | 52.2                      | 3.9         |
| Other crops:                       |             |                           |             |
| Potatoes .....                     | 211         | 3.3                       | —           |
| Seed crops .....                   | 57          | 0.9                       | —           |
| Beans and peas .....               | 30          | 0.5                       | —           |
| Sugar beets .....                  | 13          | 0.2                       | —           |
| Flax and hemp .....                | 8           | 0.1                       | —           |
| Others .....                       | 25          | 0.4                       | —           |
| Total other crops .....            | 344         | 5.4                       | 0.4         |
| Fallow .....                       | 346         | 5.4                       | 0.4         |
| Total cropland .....               | 6,396       | 100.0                     | 7.5         |
| PERMANENT MEADOW                   |             |                           |             |
| Hay .....                          | 620         | —                         | —           |
| Pasture .....                      | 1,240       | —                         | —           |
| Other .....                        | 223         | —                         | —           |
| Total permanent meadow .....       | 2,083       | —                         | 2.5         |
| FOREST - WOODS                     | 63,290      | —                         | 73.5        |
| OTHER LAND                         | 14,341      | —                         | 16.5        |
| Total land area <sup>1</sup> ..... | 86,110      | —                         | 100.0       |

<sup>1</sup> Excluding nearly 10 million acres of lakes.

### SMALL OWNER-OPERATED FARMS



Figure 6.—Small farmstead in southwestern Finland, near Masala. (Courtesy of the Finnish Travel Information Bureau, Rockefeller Center, New York.)

With limited tillable land available, Finnish farms are small. The average area of cropland per farm is about 22 acres,<sup>2</sup> in addition to about 7 acres of permanent meadow, or 29 acres used for agricultural purposes. More than one-half of the farms have between 5 and 25 acres of cropland and only 6 per cent have more than 60 acres of cropland. Data on the total acreage in farms is not available, but the acreage in farm forests usually greatly exceeds that in cropland.

About 90 percent of the cropland is now owned by the operators themselves. Far-reaching changes have been made in this respect since 1910, when only about 56 percent of the farms were operated by the owners.



Figure 7.—Farmhouse in Karjala (Karelia) Province, in eastern Finland. The Russian influence is apparent in the architecture. This region was lost to Finland from 1710 to 1809. (Courtesy of the Finnish Travel Information Bureau.)

Electric current is widely distributed. About two-thirds of the total population of the country live in electrified areas that are supplied largely by hydroelectric plants, which convert the energy of the numerous waterfalls into power and light. Large-scale farm implements are not in general use because the fields are small and cheap labor is abundant; but some of the larger and more expensive machines are owned cooperatively. Relatively large amounts of hand labor are employed in field operations. About one-third of the rural population consists of farm laborers.

<sup>2</sup> In the United States the average acreage of cropland per farm in 1930 was 53 acres, and of tillable land 75 acres.

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Farm indebtedness is not large, being equal in 1932-1934 to only about 17 percent of farm assets. The following shows the percentage of farms having various degrees of indebtedness:

| FARM DEBTS AS PERCENTAGE<br>OF ASSETS<br><i>Percent</i> | PERCENTAGE OF FARMS IN<br>EACH GROUP<br><i>Percent</i> |
|---------------------------------------------------------|--------------------------------------------------------|
| None .....                                              | 34                                                     |
| 1 to 24 .....                                           | 37                                                     |
| 25 to 49 .....                                          | 20                                                     |
| 50 and over .....                                       | 9                                                      |
| Total .....                                             | 100                                                    |

Credit was obtained from five principal sources as follows:

|                           | <i>Percent</i> |
|---------------------------|----------------|
| Private individuals ..... | 26             |
| Cooperatives .....        | 21             |
| Mortgage companies .....  | 18             |
| Savings banks .....       | 18             |
| Commercial banks .....    | 17             |
| Total .....               | 100            |

### GREATLY INCREASED CROP PRODUCTION

Grain accounted for about 37 percent of the cropland in 1938 (see table 2) and hay for about 45 percent, in addition to the hay cut from permanent meadow. Together hay and grain occupied 82 percent, leaving only 18 percent for all other crops, tillable pasture, and fallow land.

Nearly half of the grain acreage was devoted to oats, one-fourth to rye, and one-eighth each to wheat and barley. Oats holds its dominant position because it is well adapted to the short, cold growing seasons and because of the large requirements for dairy-cattle feed. Potatoes, an important crop both for food and for feed, accounted for 3.3 percent of the total cropland. Figure 8 shows the extent to which the cropland is concentrated in the southwestern half of the country, and figure 10 shows the distribution of agricultural land as between grain and other crops (primarily hay) and permanent meadow in each of the Provinces. Note that to the north and east the proportion of cropland devoted to grain decreases whereas that devoted to hay and permanent meadows increases.

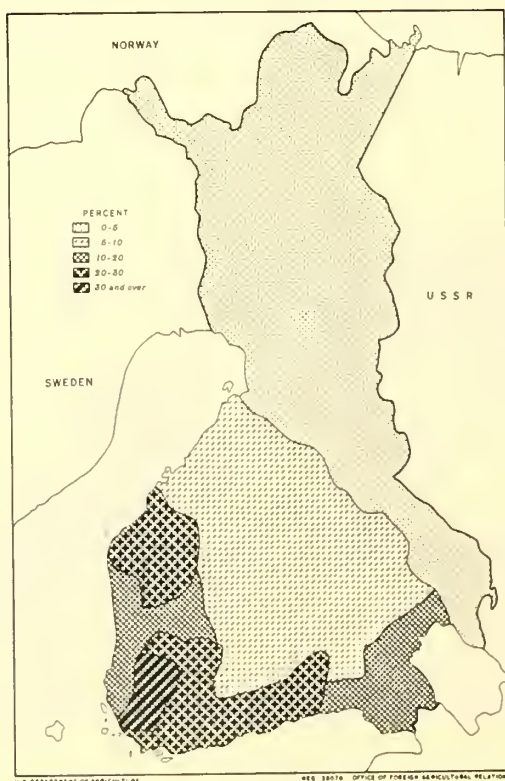


Figure 8.-Distribution of cropland.



Figure 9.—Harvesting rye in eastern Finland near Uhtua on the Russian border. (Courtesy of the Finnish Travel Information Bureau.)

Most significant has been the great increase in the production of grain since 1917, when Finland established its independence. Table 3 shows the average acreage and production of the principal crops in 1909-1913 as compared with 1936-1938. During this period the total grain production was more than doubled. Oat production was increased two and one-half times, barley 75 percent, rye 40 percent, and wheat, which was practically not grown at all before the war, to 14 million bushels by 1938. Potato production was increased more than two and one-half times that of 1909-1913. Sugar beets, a crop not grown at all until 1919, yielded about 145,000 tons in 1938.

Part of this increase in production was attained by a 23-percent increase in planted acreage, but by far the greatest increase in production resulted from higher yields. The per-acre yield of oats was more than doubled, that of wheat and barley was increased by 60 percent, and that of rye by 40 percent during this period. Numerous factors contributed to the higher yields, principal among which was placing agriculture on a more profitable basis. Higher-yielding plant varieties were developed, swampy lands were drained, the application of commercial fertilizer was greatly increased, and other improved cultural practices were developed by Government agencies, especially through the farm cooperative societies. By 1936 the quantity of commercial-fertilizer materials imported was alone sufficient for an average application of 170 pounds for every acre of cropland, exclusive of the hay area and pasture. In 1938 the quantity of commercial fertilizer used in Finland was four times as great as the average for 1921-1925.

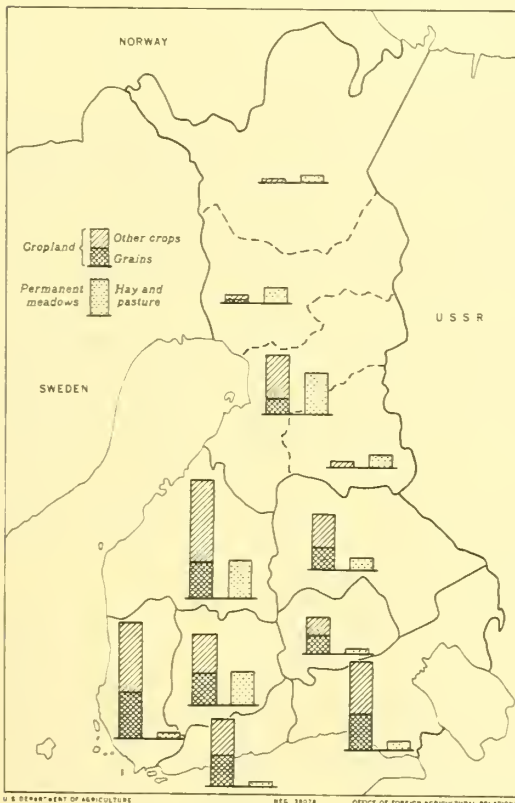


Figure 10.—Acreage of grain, other crops, and permanent meadow, by Provinces.

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Figure 11.—Drying and carding flax fiber in southwestern Finland.  
(Courtesy of the Finnish Travel Information Bureau.)

TABLE 3.—Acreage, production, and yield per acre of principal crops in Finland,  
averages 1909-1913, 1921-1925, 1936-1938

| CROP                   | ACREAGE          |               |               | PRODUCTION    |               |               | YIELD PER ACRE |               |               |
|------------------------|------------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|
|                        | 1909-<br>1913    | 1921-<br>1925 | 1936-<br>1938 | 1909-<br>1913 | 1921-<br>1925 | 1936-<br>1938 | 1909-<br>1913  | 1921-<br>1925 | 1936-<br>1938 |
|                        | : 1,000:         | : 1,000:      | : 1,000:      | Million:      | Million:      | Million:      | Bush-:         | Bush-:        | Bush-:        |
|                        | acres:           | acres:        | acres:        | bushe ls:     | bushe ls:     | bushe ls:     | e ls :         | e ls :        | e ls          |
| Grain:                 | : :              | : :           | : :           | : :           | : :           | : :           | : :            | : :           | : :           |
| Oats .....             | 999:             | 1,058:        | 1,126:        | 20.4 :        | 34.5 :        | 51.8 :        | 20.4:          | 32.6:         | 46.0          |
| Rye .....              | 589:             | 578:          | 585:          | 10.5 :        | 11.3 :        | 14.5 :        | 17.8:          | 19.6:         | 24.8          |
| Barley .....           | 278:             | 273:          | 306:          | 4.9 :         | 5.8 :         | 8.7 :         | 17.8:          | 21.2:         | 28.5          |
| Wheat .....            | 8:               | 36:           | 270:          | 0.1 :         | 0.7 :         | 7.4 :         | 16.6:          | 20.5:         | 27.2          |
| Mixed .....            | <sup>1</sup> 20: | 24:           | 42:           | - :           | - :           | - :           | - :            | - :           | -             |
| Total grains .....     | 1,894:           | 1,969:        | 2,329:        | - :           | - :           | - :           | - :            | - :           | -             |
| Potatoes .....         | 181:             | 167:          | 213:          | 18.4 :        | 21.8 :        | 49.2 :        | 102.0:         | 131.0:        | 229.0         |
|                        | : :              | : :           | : :           | : :           | : :           | : :           | : :            | : :           | : :           |
|                        | : :              | : :           | : :           | : 1,000 :     | : 1,000 :     | : :           | : :            | : :           | : :           |
| Hay:                   | : :              | : :           | : :           | : tons :      | : tons :      | : :           | : Tons :       | : Tons :      | : Tons        |
| Cropland .....         | - :              | 2,066:        | 2,817:        | - :           | 2,315 :       | 4,013 :       | - :            | 1.1:          | 1.4           |
| Permanent meadow ..... | - :              | 1,186:        | 621:          | - :           | 580 :         | 272 :         | - :            | 0.5:          | 0.5           |
| Total hay .....        | - :              | 3,252:        | 3,438:        | - :           | 2,895 :       | 4,285 :       | - :            | - :           | -             |
| Sugar beets .....      | 0:               | 2:            | 9:            | 0 :           | 10 :          | 111 :         | - :            | 5.0:          | 11.3          |
|                        | : :              | : :           | : :           | : :           | : :           | : :           | : :            | : :           | : :           |

<sup>1</sup> Estimated.

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In 1909-1913 Finland's bread-grain production (exclusive of oats) was sufficient to meet only about 41 percent of the country's requirements. Domestic production supplied 56 percent of the rye and imports 44 percent, but domestic production of wheat at that time was insignificant. By 1929-1930 domestic production supplied 53 percent of the total bread-grain requirements; by 1934, 82 percent; and by 1938, about 93 percent (see table 4).

TABLE 4.—Grain production, percentage production is of total requirements, and proportion used on farms, 1934

CROP	DOMESTIC PRODUCTION			UTILIZATION OF CROP IN 1934 ²	
	QUANTITY		PERCENTAGE OF TOTAL REQUIREMENTS		
	1909-1913	1936-1938	1936-1938 ¹	ON FARMS	SOLD
	<i>Million pounds:</i>	<i>Million pounds:</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
Oats	653	1,658	98	95	5
Rye	588	812	87	69	31
Barley	235	418	94	80	20
Wheat	6	444	68	² 80	² 20
Mixed	10	20	—	100	0
Total	1,492	3,352	89	90	10
	:	:	:	:	:

¹ In 1938 production was further increased while imports decreased so that the percentage of self-sufficiency increased from 1 to 6 percent further.

² Wheat production in 1938 was more than double that of 1934 and the percentage sold increased greatly by 1938.

Lantushallning Jordbruk Och Boskapskötsel; and *Ulkomaankauppa-Utrikeshandel* (annual report of foreign trade), Government Printing Office, Helsinki.

Most of the feed grain, especially oats, is used on the farms as feed for livestock. Practically none is exported. Even with the greatly increased grain production Finland still imports relatively large quantities of additional grain, byproducts, and concentrates for feed in order to maintain the livestock industry. Whereas the total grain production during 1936-1938 averaged 3,352 million pounds annually (table 4), additional imports of grain and feed during this period averaged 815 million pounds, as follows:

	<i>million pounds</i>
Small grain, including rice and grain-equivalent of imported flour	400
Corn	180
Oil cake and meal	138
Bran	87
Other feed	10
Total	815

LIVESTOCK - PRIMARILY DAIRY CATTLE

Finland is essentially a dairy country. The climate favors production of hay, pasture, and oats. Hay alone furnishes more than one-half of the total livestock

feed grown in the country. Furthermore, dairying offers year-round employment, and dairy products are well adapted for export to other European countries. Dairying supplies one-half of the total agricultural income and, with other cattle products, three-fourths of the total value of agricultural exports. More than 60 percent of all livestock feed is fed to dairy cattle. Horses consume about 28 percent of the feed.

TABLE 5.--Livestock numbers on farms, 1909-1913 and 1937, and value of exports, of livestock and products, average 1936-1938

KIND	NUMBER ON FARMS		AVERAGE 1936-1938 EXPORT VALUE OF-			
	1909-1913 (1)	1937	LIVE ANIMALS	MEAT	OTHER PRODUCTS	TOTAL
	: :Thousands:	: :Thousands:	: :Million : :marks	: :Million : :marks	: :Million : :marks	: :Million : :marks
Horses	347	380	1.1	(2)	(2)	1.1
Cattle	1,583	³ 1,925	0.8	10.8	527.6	539.2
Reindeer	127	100	0	11.3	0	11.3
Sheep ⁴	1,250	1,072	0	(2)	(2)	(2)
Hogs	300	⁵ 504	2.7	34.0	(2)	36.7
Poultry ⁶	—	2,815	0.2	12.8	119.2	132.2
Total	—	—	4.8	68.9	⁷ 646.8	⁷ 720.5

¹ Approximation.

² ~~Small amounts included~~ under "cattle."

³ Includes 1,343,587 cows.

⁴ Includes 10,000 goats.

⁵ Includes 53,733 sows.

⁶ Over 6 months old.

⁷ Includes 123.2 million marks of hides and skins.

The 1936-1938 annual average rate of exchange for the Finnish mark was about 2.2 cents. *Lantushållning Jordbruk Och Boskapskötsel and Ulkomaankauppa-Utrikeshandel.*

The number of head of livestock has not changed much in recent years - cattle numbers have increased about 20 percent from the 1909-1913 level (see table 5). The productivity of livestock, however, has changed greatly. The average milk production in cow-testing associations in 1913 was 4,340 pounds of 4-percent milk per cow. During the war year of 1913 with shortage of feed, this declined to only 3,460 pounds, but by 1931-1933 it had increased to 5,730 pounds, or 32 percent above the 1913 level. On farms keeping books in 1933 the production per cow averaged 6,300 pounds of milk and 257 pounds of butterfat.

Lower wool prices and the increased production of feed grain and potatoes have been largely responsible for the shift from sheep to hogs. In northern Finland and Lapland there are about 100,000 reindeer, which supply about 3 million pounds of meat annually. Although reindeer are relatively unimportant compared with other livestock, the value of reindeer meat exported was equal to about one-third of the value of the pork products exported during 1936-1938.

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Cattle are mostly of the small native Finnish dairy breed, particularly adapted to local conditions. About one-half of all the milk produced is used in the manufacture of butter; slightly less than one-half is consumed as whole milk.

*Utilization of Milk, 1934*

|                                     | Percent |
|-------------------------------------|---------|
| Consumed as fresh milk, etc . . . . | 45.75   |
| Used in manufacture of butter ..    | 48.95   |
| Used in manufacture of cheese ..    | 3.67    |
| Used for livestock feed .....       | 1.63    |
| Total .....                         | 100.00  |

Over one-half the butter, all of that for export, is manufactured in commercial dairies, and slightly less than one-half is made on farms. About one-fourth of the butter and one-half the cheese are exported (table 6). Cheese is primarily of the Emmenthaler types with smaller quantities of Edam and Gouda. It is made almost entirely in dairies, only 7 percent being produced on farms. In order to insure the highest possible quality and standard of the products, most of the milk is graded according to several factors of quality, and producers are paid premiums on a quality basis. Ninety percent of the milk used in dairies and all of that used in the manufacture of products for export is thus graded. Products for export are made only in commercial dairies. In 1934 there were 598 dairies in Finland, of which 521 were cooperatives.

TABLE 6.—*Production, use, and exports of livestock products, 1934*

| ITEM               | PRODUCTION             | UTILIZATION            |                        |                      | PORTION OF PRODUCTION EXPORTED | PER-CAPITA CONSUMPTION IN FINLAND |
|--------------------|------------------------|------------------------|------------------------|----------------------|--------------------------------|-----------------------------------|
|                    |                        | USED ON FARM           | SOLD                   |                      |                                |                                   |
|                    |                        |                        | USED DOMESTICALLY      | EXPORTED             |                                |                                   |
|                    | : Million :            | : Million :            | : Million :            | : Million :          | :                              | :                                 |
| Meat:              | : pounds :             | : pounds :             | : pounds :             | : pounds :           | : Percent :                    | : Pounds :                        |
| Beef, veal .....   | 98.2 :                 | 44.1 :                 | 53.0 :                 | 1.1 :                | 1 :                            | —                                 |
| Pork .....         | 94.8 :                 | 71.0 :                 | 20.0 :                 | 3.8 :                | 4 :                            | —                                 |
| Mutton, lamb ..    | 10.4 :                 | 4.4 :                  | 5.5 :                  | 0.4 :                | 4 :                            | —                                 |
| Horse meat .....   | 6.0 :                  | 0 :                    | 6.0 :                  | 0 :                  | 0 :                            | —                                 |
| Reindeer .....     | 3.3 :                  | 1.3 :                  | 0.7 :                  | 1.3 :                | 40 :                           | —                                 |
| Poultry .....      | 3.3 :                  | 1.2 :                  | 0.6 :                  | 1.5 :                | 45 :                           | —                                 |
| Total .....        | 216.0 :                | 122.0 :                | 85.8 :                 | 8.1 :                | 4 :                            | 55                                |
| Milk .....         | <sup>1</sup> 4,750.0 : | <sup>1</sup> 2,280.0 : | <sup>1</sup> 1,820.0 : | <sup>1</sup> 650.0 : | 14 :                           | <sup>2</sup> 610                  |
| Butter .....       | 99.0 :                 | — :                    | — :                    | 24.5 :               | 25 :                           | 21                                |
| Cheese .....       | 15.7 :                 | — :                    | — :                    | 8.5 :                | 54 :                           | 2                                 |
| Eggs .....         | 37.5 :                 | 9.4 :                  | 6.0 :                  | 22.1 :               | 59 :                           | 5                                 |
| Wool .....         | 2.4 :                  | 1.2 :                  | 1.2 : <sup>3</sup>     | 0.1 : <sup>3</sup>   | 4 :                            | —                                 |
| Hides and skins .. | 15.0 :                 | — :                    | — : <sup>4</sup>       | 8.4 : <sup>4</sup>   | 56 :                           | —                                 |

<sup>1</sup> Includes whole-milk equivalent of products.

<sup>2</sup> Whole milk only.

<sup>3</sup> Wool is on a net-import basis; 1934 imports totaled 10.6 million pounds plus the equivalent of 10.5 million in manufactured products.

<sup>4</sup> Imports equaled 19 million pounds.

*Agriculture in Finland*, Ministry of Agriculture, Helsinki, 1937.

The poultry industry has developed very rapidly. Before the World War, Finland imported eggs, but by 1937 egg exports totaled nearly 20 million pounds, worth about 2.7 million dollars. Eggs accounted for about 17 percent of the value of all agricultural exports and were second in importance only to butter. About half of the total egg production is exported. Leghorns are the principal breed of chickens. Production is especially important on the smaller farms in southwestern Finland, where the poultry industry supplements, and to some extent competes with, dairying.

Out of a total production of 216 million pounds of all kinds of meat in 1934, more than half was used on the farms, about 40 percent was sold for use domestically, and less than 4 percent was exported (see table 5). Beef (including veal) and pork each supplied nearly half of the total meat production; but pork, both cured and fresh, was more important in exports. In considering the total meat supply of the country, it should be mentioned that one author estimates the total quantity of fish consumed to be between 70 and 80 million pounds compared with the 208 million pounds of meat from livestock.

#### FACTORS AFFECTING THE DEVELOPMENT OF AGRICULTURE

Prior to the World War when Finland was still under Russian sovereignty, it was possible for Finland to obtain relatively cheap supplies of grain from Russia. Under this competition the production of grain in Finland was relatively unprofitable, and farmers gave much attention to dairying and little to grain. The production of bread grain declined 13 percent from 1871-1875 to 1911-1915, until the country supplied only 41 percent of its bread-grain requirements. On a per-capita basis, production declined 50 percent. But, during the World War when Finland's import supplies were cut off and famine threatened, farmers turned to increased domestic production in an effort to attain a greater degree of self-sufficiency. The limited area of tillable land made this process slow; but, after the country attained its independence, new measures were available to stimulate production.

Import duties on grain, which had been abolished in 1864, were again imposed, and in addition levied on dairy products and competing products in 1919 to improve farm prices of the country's most important products. At the same time the Government instituted several other important measures for the improvement of Finnish agriculture. Many new industries were established, and exports of timber, paper, and pulp increased, with a result that the greater prosperity increased domestic demand for agricultural products.

The success that has been achieved as a result of the various measures is best shown by the increase (see table 3) in production of all kinds of agricultural products and the introduction of some new crops, such as sugar beets, which developed to the extent that domestic sugar beets supply about 15 percent of the country's total sugar requirements. Some of the most outstanding long-time agricultural measures are discussed below.

## LANDOWNERSHIP REFORMS AND COLONIZATION

In 1901 only 23 percent of the farmers owned the farms they operated; 34 percent were tenants; and 43 percent were laborers. The disadvantages of this situation had long been recognized; but, although attempts were made to improve the position of tenant farmers and laborers by law in 1902 and 1909, no great progress was made until 1918, when legislation provided for the redemption of leased lands on private estates. As a result of the various land-reform and colonization laws, about 2 million acres of land had been reallocated to private owner-operators and about 117,000 tenants had been transferred to the ownership of farms by 1934. About 90 percent of the farms are now operated by their owners.

## LAND RECLAMATION

The Government Board of Agriculture supports land-reclamation and improvement work by grants and by amortization loans at low interest rates on condition that a specified part of the land is placed under cultivation. In general, the grants are sufficient to cover the cost of supervision, equipment, and part of the labor; the remainder of the cost may be covered by amortization loans. Since 1918 land-improvement work has increased greatly each year.

Between 1919 and 1933, 1,534 projects were completed in which more than 510,000 acres were drained, equivalent to about 8 percent of the present total cropland. Since 1929 bounties have also been paid for clearing land for cultivation. In 5 years the area cleared with the aid of bounties amounted to more than 400,000 acres. Thus the area of tillable land, which in 1929 amounted to 5.3 million acres, by 1934 had been increased to 6.2 million.

## EXPERIMENT STATIONS SUPPORTED BY THE GOVERNMENT

Formerly the leadership in experimental and improvement work rested upon a few large estates, and small farmers were unable to obtain the advantage of improved methods. On the basis of the law of 1923, agricultural-experiment and research work is now carried on by Government funds and coordinated by a Central Committee in the Ministry of Agriculture. All kinds of experimental work is conducted by Government stations and through agricultural schools and numerous cooperative societies.

## AGRICULTURAL EDUCATION INCREASED

The first educational institution specifically for agriculture was founded in 1840 at Mustiala, and by 1857 numerous others had been founded. Agricultural schools are also supported by Government grants. Stress is laid on the combination of practical training with theoretical. Since 1915 the number of students in agricultural schools has doubled, and the number receiving supervised practical training has tripled. Courses vary from short courses of 2 months' duration to others of 4 years, plus prerequisite training. Table 7 shows the number of various kinds of agricultural schools and the enrollment in 1934.

TABLE 7.—Agricultural schools in Finland and number of students, 1934

| KIND                   | SCHOOLS       |               | PRACTICAL TRAINING CENTERS |               |
|------------------------|---------------|---------------|----------------------------|---------------|
|                        | INSTITUTIONS  | STUDENTS      | INSTITUTIONS               | STUDENTS      |
|                        | <i>Number</i> | <i>Number</i> | <i>Number</i>              | <i>Number</i> |
| Agricultural .....     | 51            | 2,023         | 514                        | 972           |
| Gardening .....        | 6             | 91            | 22                         | 93            |
| Cattle and Dairy ..... | 46            | 1,575         | 466                        | 870           |
| Domestic science ..... | 43            | 1,827         | 83                         | 107           |
| Home industry .....    | 109           | 2,769         | —                          | —             |
| Total .....            | 255           | 8,285         | 1,085                      | 2,042         |

*Agriculture in Finland.*

#### AGRICULTURAL EXTENSION THROUGH FARMERS' ORGANIZATIONS

Extension, planning, and advisory work in agriculture is carried out by organizations founded by the farmers themselves, although the Government assists with financial aid. In 1934 there were 22 regional agricultural societies with 1,335 local units and a membership of 134,500, equal to about one-half the total number of farms in Finland. These organizations furnish advice and plans and organize lectures, courses, demonstrations, excursions, experiments, exhibits, and competitions and assist in keeping farm records. The local societies are organized for the subjects most important in their particular community; some, for instance, deal especially in reindeer breeding, fur farming, and swamp farming.

#### COOPERATIVE SOCIETIES WIDELY DEVELOPED

In common with the Scandinavian countries, Finland has widely developed its cooperative enterprises. The beginning in Finland may be traced to the Pellervo Society, established in 1899 for education in cooperative organizations. In 1901 the first cooperative was established, and by 1917 the number had increased to 2,922. At present the number is probably between four and five thousand, with a membership of about 800,000, covering every phase of economic life.



Figure 12.—Cheese stores of the cooperative Butter Export Association Valio. (By Werner Söderström Osakeyhtiö.)

The strongest branch of the cooperative movement is the cooperative stores, originally modeled after the Rochdale cooperatives but later developed into an organization for both buying and selling. Other types of cooperatives are wholesale societies, dairies, and cooperatives for credit, ownership of machinery, egg marketing, peat production, telephones, electricity, livestock breeding, and livestock-improvement work. By 1934 about 94 percent of Finland's total butter exports were handled through cooperative organizations.

### MEASURES TO RELIEVE AGRICULTURAL DEPRESSION

The depression of 1929-1933 affected agriculture in Finland as in most other countries. It was aggravated in Finland through the reduced demand for Finland's forest and dairy products. Russian timber dumping, which caused the value of Finland's principal exports to decline, not only reduced the domestic consumer's ability to purchase agricultural products, but also greatly reduced the supplementary cash income that farmers had been obtaining from the sale of lumber and from work in forests. The following tabulation shows the relative importance of the principal items in the cash income and expenditures of Finnish farms during recent years. These data are based upon the results of farm bookkeeping records kept on over 800 farms. Note that income from farm timber sales and work in forests made up more than one-fourth of the total receipts. In some years the proportion is still higher.

| <i>Estimated distribution of<br/>cash receipts</i> |                | <i>Estimated distribution of<br/>cash expenses</i> |                |
|----------------------------------------------------|----------------|----------------------------------------------------|----------------|
|                                                    | <i>Percent</i> |                                                    | <i>Percent</i> |
| Crops .....                                        | 16             | Wages .....                                        | 31             |
| Dairy products ...                                 | 35             | Feed .....                                         | 29             |
| Poultry and eggs .                                 | 9              | Fertilizer .....                                   | 13             |
| Hogs .....                                         | 7              | Seed .....                                         | 4              |
| Other products ...                                 | 6              | Building and equip-                                |                |
| Sale of timber and                                 |                | ment maintenance                                   | 9              |
| work in forests.                                   | 27             | Other .....                                        | 14             |
| Total .....                                        | 100            | Total .....                                        | 100            |

As a result of these factors the price index of agricultural products, which had risen to 110 in 1923 (1926 equals 100) fell to 82 in 1930 and to 70 in 1931. An additional factor in the depression was the unusually poor harvest in 1928, which amounted to complete failure in many parts of the country.

Farmers endeavored to make good their losses in cash incomes by increasing the physical volume of production, and this greater volume of production in turn resulted in a further drop in prices. Government measures were then taken in an effort to improve farm prices. This was done by (1) levying higher import duties on competitive products, (2) a system of export certificates applied to pork and eggs, (3) export subsidies on all kinds of livestock products, and (4) compulsory mixing requirement for domestic grain and flour. In addition, other measures not specifically directed toward raising prices involved increased public works, such as improvement of roads and forests in rural districts and credit relief, which permitted distressed farms to be refinanced at long-term low-interest rates.

Although the imported quantities of many farm products were small in relation to the total consumption, the *import duties* appear to have had considerable effect on raising prices. For instance, the average price of imported rye during the 5 years 1931-1935 was 0.98 mark per kilogram,<sup>3</sup> plus the duty, which averaged 1.22 marks, or a total cost of 2.20 marks. During the same period the average price of domestic rye followed this figure very closely, being 2.16 marks per kilogram. On dairy products the increased duty was effective primarily through reducing the imports of competitive products, such as other animal and vegetable fats. An excise tax was also levied on domestic margarine. Duties were introduced on imported feeds in 1934 to encourage the use of home-grown feed and at the same time provide funds for subsidies on the exports of livestock products.

A system of *export certificates* on eggs and pork was introduced in December 1928. The purpose of this measure was to increase the production of eggs and pork through issuing to exporters certificates indicating the sum that would have been payable as duty on the corresponding imports of these products. On receiving such a certificate, the exporter was entitled within 6 months to import, duty-free, similar products or feed grains.

For sugar beets, the Government guaranteed a fixed *minimum price* and increased the duty on imported sugar. This protection has resulted in expanding the sugar-beet production from nothing in 1918 to 145,000 tons in 1938, sufficient to supply about one-sixth of the country's requirements. Price-fixing measures were also applied to dairy products in conjunction with export subsidies.

*Export subsidies* have been widely used. They were first introduced on dairy products in December 1932, with a subsidy of 3 marks per kilogram on export butter selling for less than 20 marks, or a subsidy equal to the difference between 20 and 23 marks where the butter sold for more than 20 but less than 23. The rates of the subsidy have been subsequently changed, and have been expanded to include practically all livestock products, even beef and reindeer meat since 1935. The subsidy rates in effect in July 1933 were as follows:

|                  | <i>In marks per kilogram<sup>4</sup></i> |
|------------------|------------------------------------------|
| Butter .....     | 5.5                                      |
| Cheese .....     | 3.2                                      |
| Eggs .....       | 3.0                                      |
| Pork .....       | 2.5                                      |
| Reindeer meat .. | 1.2                                      |
| Other meat ..... | 1.0                                      |

The amount of the subsidy is calculated as the difference between the export price and the fixed wholesale price to be maintained on the local market, which for butter in July 1933 was equivalent to about 28 cents per pound. By the end of 1937 a total of 552 million marks had been paid out in export subsidies on livestock

<sup>3</sup> During this period the value of the mark in terms of United States currency varied from 1.55 cents to 2.23 cents, and averaged 2.04 cents. Expressed in cents per pound the above values are, therefore, import price 0.9 cent, duty 1.13 cents, total 2.03 cents, and domestic price 2 cents.

<sup>4</sup> In 1938 the mark was equivalent to about 2.16 cents. Since 1 kilogram equals 2.2 pounds, the values in marks per kilogram are roughly equivalent to the values in cents per pound.

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products. Payments in 1937 were the largest of any year up to that time, totaling 120 million marks, of which 75 million were paid on butter and 24 million on eggs (see table 8). Note that in 1937 the subsidy paid was equivalent to nearly 30 percent of the export value of butter, 20 percent for eggs, 15 percent for cheese, and about 10 percent for meat. The total value of all livestock products sold in Finland is estimated at between 2 and 3 billion marks annually.

A compulsory grain-mixing law was introduced in September 1931 to increase the use of domestic grain. Under this law a miller using foreign rye for flour or foreign oats for hulling was compelled to mix with it a certain percentage of home-grown grain, and importers of foreign rye flour were also compelled to mix a certain percentage of flour from home-grown rye. During the period 1931-1935, the percentage utilization of domestic rye required of millers, as well as the percentage required to be mixed with imported rye flour, varied from 1 to 35 percent, depending upon the supplies available. The required proportions of domestic oats varied from 1 to 95 percent. Under this law the quantity of domestic rye used in mills was more than doubled during the first 4 years of its operation. In 1935 provision was made under which millers of wheat flour obtained a certain reduction or drawback in import duty on imported wheat for every pound of domestic wheat used. In 1938 the duty was equivalent to 1 cent per pound and the drawback to 0.35 cent.

The success of the various measures designed to relieve the agricultural depression is indicated by the level of farm prices and the expanding volume of production and exports. The index of domestic farm prices (1926-1928 equals 100) declined to 71 in 1931 and 1932, crop prices declined to 72, and animal products to 70. At the same time, however, the cost of articles purchased by farmers also declined to an index of 86 so that the net disadvantage in farm prices was only about 15 points during the worst of the depression. Since that time, farm prices have risen to an index of 80 in 1938.

FOREIGN TRADE

The total foreign trade of Finland in 1938 was equivalent in value to about 403 million dollars. Exports in 1937 were about the same in total value as those of Norway, about two-thirds those of Denmark, and nearly one-third those of France. Finnish imports and exports in that year were very nearly equal. The country had a favorable balance of trade every year from 1930 until 1938, when exports fell slightly below imports. After 1931 the value of exports increased steadily to an all-time record, equivalent to about 201 million dollars in 1937, but declined about 10 percent in 1938. The value of imports, too, has increased every year, from 83 million dollars in 1931 to 201 million dollars in 1937, but in terms of dollars did not surpass the record imports in 1928.

EXPORTS PRIMARILY FOREST AND DAIRY PRODUCTS

Figure 13 shows the importance of the various groups of commodities in the import-export trade. Note that the total of all kinds of forest products, including

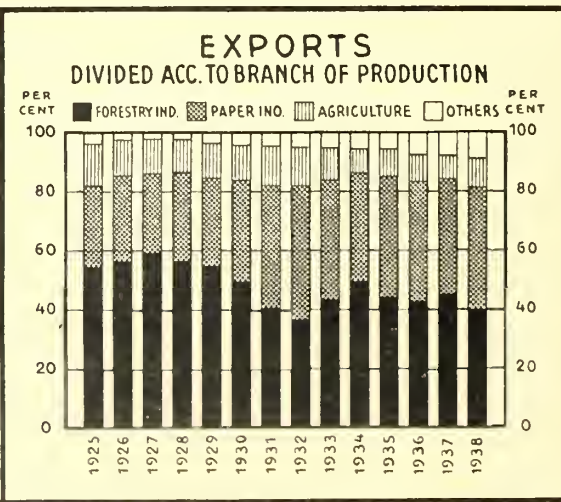
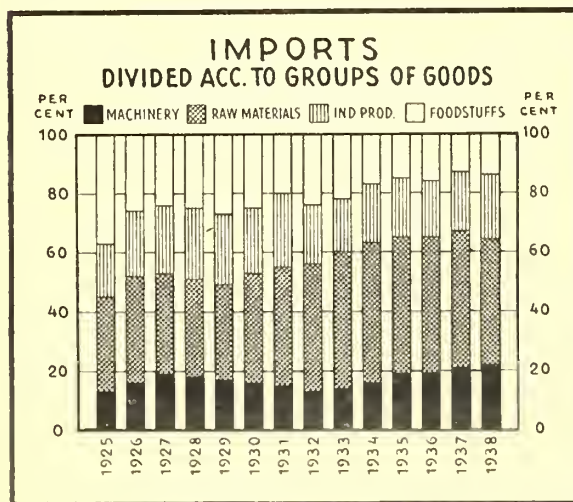
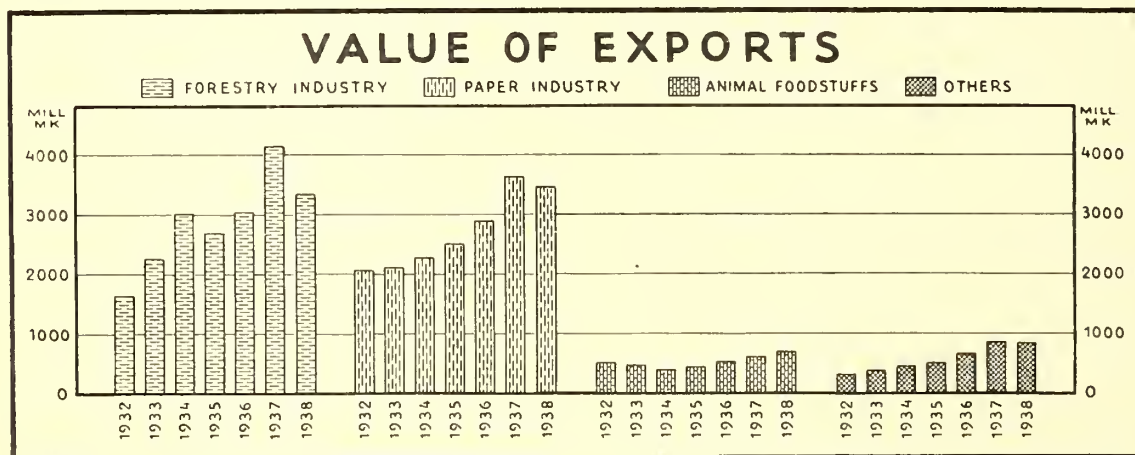
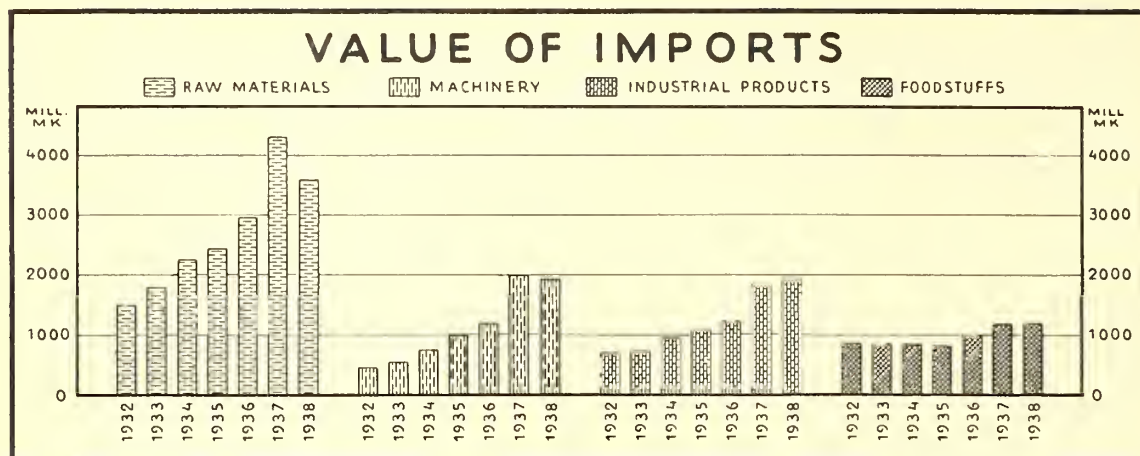


Figure 13.

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timber, pulp, and paper, accounts for about 82 percent of all exports; agricultural products about 3 percent; and all other products less than 10 percent. An increasing proportion of the raw material obtained from the forests is manufactured and exported in the form of such products as paper and wood pulp, while the exports of sawn timber are now at a slightly lower level than they were 10 years ago.

TABLE 8.—Exports of principal livestock products and amount of export subsidy paid, 1928-1938

| YEAR       | BUTTER                |            |            | CHEESE        |            |            | EGGS          |            |            |
|------------|-----------------------|------------|------------|---------------|------------|------------|---------------|------------|------------|
|            | QUAN-<br>TITY         | VALUE      | SUBSIDY    | QUAN-<br>TITY | VALUE      | SUBSIDY    | QUAN-<br>TITY | VALUE      | SUBSIDY    |
|            | : Million:            | : Million: | : Million: | : Million:    | : Million: | : Million: | : Million:    | : Million: | : Million: |
|            | : Pounds :            | : marks :  | : marks :  | : Pounds :    | : marks :  | : marks :  | : Pounds :    | : marks :  | : marks :  |
| 1928 ..... | 29.5 :                | 453 :      | 0 :        | 3.5 :         | 33 :       | 0 :        | — :           | — :        | —          |
| 1929 ..... | 36.5 :                | 538 :      | 0 :        | 4.6 :         | 41 :       | 0 :        | 0.2 :         | 1 :        | (1)        |
| 1930 ..... | 37.8 :                | 444 :      | 0 :        | 2.4 :         | 34 :       | 0 :        | 0.9 :         | 6 :        | 2          |
| 1931 ..... | 38.3 :                | 396 :      | 0 :        | 5.7 :         | 39 :       | 0 :        | 4.2 :         | 26 :       | 9          |
| 1932 ..... | 32.0 :                | 325 :      | 0 :        | 7.3 :         | 49 :       | 0 :        | 13.9 :        | 88 :       | 31         |
| 1933 ..... | 24.5 :                | 217 :      | 36 :       | 9.3 :         | 61 :       | 6 :        | 22.0 :        | 133 :      | 40         |
| 1934 ..... | 24.4 :                | 164 :      | 67 :       | 8.6 :         | 54 :       | 7 :        | 22.0 :        | 123 :      | 28         |
| 1935 ..... | 22.5 :                | 195 :      | 50 :       | 9.4 :         | 66 :       | 10 :       | 19.1 :        | 113 :      | 17         |
| 1936 ..... | 30.8 :                | 264 :      | (2) :      | 10.3 :        | 79 :       | (2) :      | 17.2 :        | 110 :      | (2)        |
| 1937 ..... | 30.6 :                | 283 :      | 75 :       | 14.5 :        | 106 :      | 15 :       | 19.6 :        | 125 :      | 24         |
| 1938 ..... | 37.6 :                | 367 :      | (2) :      | 15.0 :        | 112 :      | (2) :      | 17.4 :        | 124 :      | (2)        |
|            | PORK, FRESH AND CURED |            |            | OTHER MEAT    |            |            | TOTAL         |            |            |
| 1928 ..... | 0.2 :                 | 1 :        | 0 :        | 0.8 :         | 7 :        | 0 :        | 34.0 :        | 499 :      | 0          |
| 1929 ..... | 0.3 :                 | 2 :        | (1) :      | 1.4 :         | 4 :        | 0 :        | 43.0 :        | 586 :      | (1)        |
| 1930 ..... | 0.8 :                 | 6 :        | 1 :        | 2.2 :         | 9 :        | 0 :        | 44.1 :        | 499 :      | 3          |
| 1931 ..... | 3.7 :                 | 20 :       | 6 :        | 2.5 :         | 9 :        | 0 :        | 51.4 :        | 490 :      | 15         |
| 1932 ..... | 4.4 :                 | 22 :       | 7 :        | 1.8 :         | 7 :        | 0 :        | 59.4 :        | 491 :      | 38         |
| 1933 ..... | 5.9 :                 | 33 :       | 8 :        | 1.5 :         | 5 :        | 0 :        | 63.2 :        | 449 :      | 90         |
| 1934 ..... | 6.0 :                 | 23 :       | 2 :        | 1.8 :         | 6 :        | 0 :        | 62.8 :        | 370 :      | 104        |
| 1935 ..... | 3.6 :                 | 32 :       | 5 :        | 5.1 :         | 20 :       | 3 :        | 59.7 :        | 426 :      | 85         |
| 1936 ..... | 5.0 :                 | 30 :       | (2) :      | 5.1 :         | 22 :       | (2) :      | 68.4 :        | 505 :      | 98         |
| 1937 ..... | 4.9 :                 | 33 :       | 3 :        | 5.3 :         | 25 :       | 3 :        | 74.9 :        | 572 :      | 120        |
| 1938 ..... | 6.0 :                 | 39 :       | (2) :      | 4.0 :         | 30 :       | (2) :      | 80.0 :        | 672 :      | (2)        |

<sup>1</sup> Less than 500,000 marks: eggs 0.1, pork 0.2, total 0.3.

<sup>2</sup> Data not available.

<sup>3</sup> Excluding poultry.

*Ulkomaankauppa-Utrikeshandel; The Agricultural Depression in Finland During the Years 1928-35*, by K. T. Jutila, Ministry of Agriculture, Helsinki, 1937; and *Report on Economic and Commercial Conditions in Finland*, Department of Overseas Trade, London, 1939.

Exports of agricultural products have increased, but not so rapidly as those of forest products. Table 9 shows the relative values of imports and exports of the various agricultural commodities, and table 8 the quantities and values of the

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principal livestock products exported since 1928. Agricultural exports are almost entirely of livestock products, of which dairy products account for more than half. The following tabulation shows the percentage distribution of agricultural exports in 1926-1938:

	Percent
Dairy products:	
Butter	41
Cheese	13
Total dairy products ..	54
Eggs	16
Hides and skins	17
Meat	8
Total animal products ..	95
Berries	2
Seeds	1
Others	2
	100

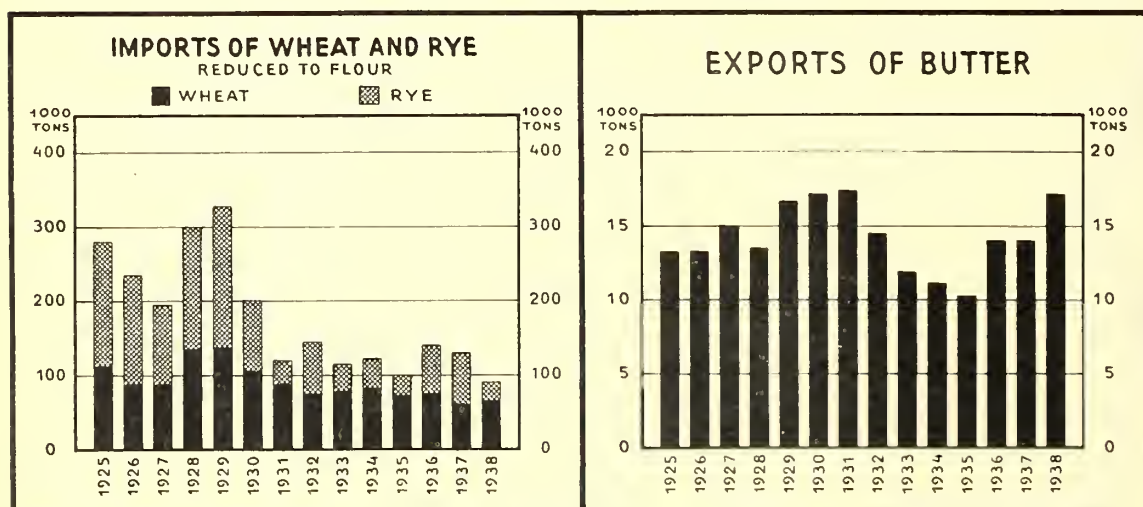


Figure 14.

IMPORTS LARGELY PRODUCTIVE GOODS

About two-thirds of the country's total imports are made up of raw materials used in manufacturing, and productive manufactured products, such as industrial machinery. Goods to be used in direct consumption account for about 35 percent, consisting of manufactured goods, food, and feed. Before the World War the proportion of goods for direct consumption amounted to nearly 60 percent of the total imports, but now the country has attained a greater degree of self-sufficiency and has increased its requirements of raw materials for its factories. The percentage of food and feed in the total value of imports declined from 43 percent before the World War to 14 percent in 1938.

Of the total imports during recent years, about 21 percent, or between 30 and 40 million dollars' worth, may be classified as agricultural, but about one-half of these are exotic products not produced in Finland, such as cotton, coffee, tobacco, cane sugar, and fruit. The quantities imported and the relative importance of these

items are shown in table 9. The most important items of agricultural imports are grain and flour (about 10 million dollars in value) and feed, such as corn and oil-seed cake and meal (about 4 million dollars). Imports of livestock and products, exclusive of hides and skins, had a total value of about 0.6 million dollars.

TABLE 9.—Imports and exports of principal classes of agricultural and related articles, average 1936-1938

ITEM	QUANTITY				VALUE			
	IMPORTS	EXPORTS	NET IMPORTS	NET EXPORTS	IMPORTS	EXPORTS	NET IMPORTS	NET EXPORTS
	: Million:	: Million:	: Million:	: Million:	: Million:	: Million:	: Million:	: Million:
	: pounds :	: pounds :	: pounds :	: pounds :	: marks :	: marks :	: marks :	: marks :
Crops:								
Grain and flour ¹ ...	580.5 :	0.1 :	580.4 :	- :	430 :	1 :	429 :	-
Feed and seeds ...	241.5 :	7.3 :	234.2 :	- :	194 :	8 :	186 :	-
Total crops	822.0 :	7.4 :	814.6 :	- :	624 :	9 :	615 :	-
Livestock:								
Live animals	- :	- :	- :	- :	10 :	5 :	5 :	-
Meat	1.3 :	11.4 :	- :	10.1 :	5 :	69 :	- :	64
Dairy products ...	0.2 :	46.6 :	- :	46.4 :	1 :	403 :	- :	402
Eggs	- :	18.0 :	- :	18.0 :	- :	119 :	- :	119
Other products ...	7.3 :	0.4 :	7.4 :	- :	136 :	126 :	10 :	-
Total livestock :	9.3 :	76.4 :	- :	67.1 :	152 :	722 :	- :	570
Fish	7.7 :	9.1 :	- :	1.4 :	14 :	22 :	- :	8
Fruit:								
Fresh	41.4 :	11.4 :	30.0 :	- :	100 :	18 :	82 :	-
Dried	10.9 :	- :	10.9 :	- :	34 :	- :	34 :	-
Sugar	229.0 :	- :	229.0 :	- :	165 :	- :	165 :	-
Coffee	50.4 :	- :	50.4 :	- :	205 :	- :	205 :	-
Tobacco	7.9 :	- :	7.9 :	- :	113 :	- :	113 :	-
Cotton	35.0 :	- :	35.0 :	- :	214 :	- :	214 :	-
Flax, jute, and hemp:	9.7 :	0.4 :	9.3 :	- :	31 :	1 :	30 :	-
Commercial								
fertilizer	462.0 :	1.0 :	461.0 :	- :	194 :	- :	194 :	-
Total above								
items	- :	- :	- :	- :	1,846 :	772 :	1,074 :	-
Forest products	- :	- :	- :	- :	167 :	6,861 :	- :	6,694
Total all items ..	- :	- :	- :	- :	8,094 :	8,260 :	- :	166

¹ Flour converted to grain equivalent.

² Value includes exported hides and skins but weight does not.

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Livestock products are the only group of agricultural products with a net export balance. The net export value of livestock products nearly balances the net import requirements of grain, feed, and seed. The following tabulation shows the increased degree of agricultural self-sufficiency, that is, approximate change in the net import value (-) of crops and fertilizer and in the net export value (+) of livestock products, since the pre-World War period:

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|                     | 1911-1913<br>Million<br>dollars | 1936-1938<br>Million<br>dollars |
|---------------------|---------------------------------|---------------------------------|
| Cereal grains ..... | -20.1                           | -9.1                            |
| Feed .....          | -3.4                            | -4.1                            |
| Fertilizer .....    | - .5                            | -4.1                            |
| Total .....         | -24.0                           | -17.3                           |
| Livestock products. | +7.4                            | +12.1                           |
| Net .....           | -16.6                           | -5.2                            |

## TRADE LARGELY WITH EUROPEAN COUNTRIES

Before the World War Russia was relatively important in Finland's external trade, accounting for about 30 percent of both imports and exports, but the importance of this trade has declined sharply to only about 1 percent of the total in recent years (see table 10). The most important country in Finland's trade is now the United Kingdom, which takes about 43 percent of all exports and supplies 19 percent of all imports.<sup>5</sup> The largest exports to the United Kingdom are pulp, lumber, and butter, whereas the principal imports from the United Kingdom are manufactured articles, minerals, and textile material.

TABLE 10.—Percentage distribution of Finland's foreign trade,  
averages 1912-1913, 1929-1930, and 1937-1938

| COUNTRIES                 | IMPORTS FROM- |           |           | EXPORTS TO- |           |           |
|---------------------------|---------------|-----------|-----------|-------------|-----------|-----------|
|                           | 1912-1913     | 1929-1930 | 1937-1938 | 1912-1913   | 1929-1930 | 1937-1938 |
|                           | Percent       | Percent   | Percent   | Percent     | Percent   | Percent   |
| United Kingdom .....      | 14.3          | 13.3      | 21.9      | 27.2        | 38.4      | 44.4      |
| Germany .....             | 43.0          | 37.6      | 19.7      | 13.9        | 14.5      | 14.0      |
| Scandinavian countries .. | 6.4           | 12.7      | 19.3      | 4.9         | 5.6       | 9.4       |
| France .....              | 1.6           | 2.6       | 2.4       | 9.3         | 6.8       | 4.1       |
| Soviet Union .....        | 30.0          | 2.1       | 1.3       | 29.5        | 3.9       | 0.5       |
| Other Europe .....        | 3.7           | 15.1      | 20.7      | 14.2        | 16.8      | 13.1      |
| Total above .....         | 99.0          | 83.4      | 85.3      | 99.0        | 85.0      | 85.5      |
| United States .....       | 0.0           | 12.3      | 8.7       | 0.0         | 7.3       | 8.6       |
| Others .....              | 1.0           | 4.3       | 6.0       | 1.0         | 7.7       | 5.9       |
| Total .....               | 100.0         | 100.0     | 100.0     | 100.0       | 100.0     | 100.0     |

*Ulkomaankauppa-Utrikeshandel.*

Exports to Germany maintained about the same position as before the World War, 14 percent of the total, but the share of imports from Germany has declined from 43 to about 17 percent. Other important countries in Finland's foreign trade are the Scandinavian countries, the Netherlands, and Belgium. European countries as a group, including the Soviet Union, now take over 31 percent of Finland's exports and supply 77 percent of its imports. The United States' share in Finland's foreign trade is relatively small, amounting to about 10 percent of the imports and about 9 percent of the exports.

<sup>5</sup> These data are based on statistics showing the countries of origin of imports and destination of exports, whereas those in table 10 show countries to which exports are sold and from which imports are purchased.

Of agricultural products, Finland's exports are primarily to the United Kingdom, Germany, and other Western European countries. Imports of feed and grain are obtained from all parts of the world: wheat from Canada; rye from the Soviet Union and the Baltic States; corn from Argentina and Yugoslavia; bran from Poland. oilseed cake from Denmark; and linseed from Argentina. Cotton is obtained predominantly from the United States, tobacco from the Near East, coffee from Brazil, Sugar from the United Kingdom and Poland, and wool from the United Kingdom.

## UNITED STATES TRADE WITH FINLAND

At the present time, trade with the United States amounts to nearly 10 per cent of Finland's total foreign trade. Imports of United States goods during the 3 years 1936-1938 had an average value equivalent to about 17.2 million dollars and exports to the United States, 15.5 million, according to Finnish data.

TABLE 11.—Finland's trade with the United States in principal agricultural products, average 1936-1938

| IMPORTS FROM UNITED STATES            |                          |                                     |                                                 |
|---------------------------------------|--------------------------|-------------------------------------|-------------------------------------------------|
| PRODUCT                               | QUANTITY<br>1,000 pounds | VALUE <sup>1</sup><br>1,000 dollars | PROPORTION OF TOTAL<br>FINNISH TRADE<br>Percent |
| Animal products:                      |                          |                                     |                                                 |
| Pork .....                            | 223                      | 24                                  | 96                                              |
| Lard .....                            | 127                      | 15                                  | 96                                              |
| Others <sup>2</sup> .....             | 125                      | 20                                  | 1                                               |
| Total .....                           | 475                      | 59                                  | 5                                               |
| Grain, etc.:                          |                          |                                     |                                                 |
| Wheat .....                           | 21,563                   | 420                                 | 16                                              |
| Rye .....                             | 2,792                    | 64                                  | 2                                               |
| Corn .....                            | 7,900                    | 105                                 | 4                                               |
| Flour .....                           | 2,841                    | 78                                  | 6                                               |
| Other feed .....                      | 2,920                    | 55                                  | 1                                               |
| Total .....                           | 38,016                   | 722                                 | 5                                               |
| Cotton .....                          | 28,254                   | 3,835                               | 50                                              |
| Tobacco .....                         | 1,595                    | 243                                 | 20                                              |
| Fruit, fresh:                         |                          |                                     |                                                 |
| Apples .....                          | 8,329                    | 380                                 | 73                                              |
| Pears .....                           | 1,964                    | 118                                 | 62                                              |
| Oranges .....                         | 1,972                    | 103                                 | 12                                              |
| Lemons .....                          | 199                      | 34                                  | 17                                              |
| Grapes .....                          | 826                      | 75                                  | 50                                              |
| Plums .....                           | 60                       | 6                                   | 14                                              |
| Others .....                          | 33                       | 5                                   | 16                                              |
| Total .....                           | 13,383                   | 721                                 | 33                                              |
| Fruit, dried:                         |                          |                                     |                                                 |
| Prunes .....                          | 4,720                    | 260                                 | 99                                              |
| Raisins, etc .....                    | 3,544                    | 216                                 | 79                                              |
| Apples .....                          | 667                      | 65                                  | 98                                              |
| Total .....                           | 8,931                    | 541                                 | 82                                              |
| Total agricultural <sup>3</sup> ..... | -                        | 6,400                               | 18                                              |
| Total all products .....              | -                        | 17,157                              | 10                                              |
| EXPORTS TO UNITED STATES              |                          |                                     |                                                 |
| Cheese .....                          | 1,518                    | 297                                 | 11                                              |
| Hides and skins .....                 | -                        | 194                                 | 7                                               |
| Others .....                          | -                        | 30                                  | -                                               |
| Total agricultural .....              | -                        | 521                                 | 3                                               |
| Total all products .....              | -                        | 15,730                              | 9                                               |

<sup>1</sup> Dollar equivalent at average rate of exchange, 2.2 cents per mark.

<sup>2</sup> Including wool.

<sup>3</sup> Estimated, including products not listed.

Ulkomaa-kauppa-Urtehandel.

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Agricultural products make up nearly 40 percent of Finland's imports from the United States and manufactured products about 45 percent. Petroleum products and other minerals constitute most of the remaining 15 percent.

Cotton is the most important agricultural import product from the United States, averaging over 28 million pounds, with a value of 3.8 million dollars annually, and supplying 80 percent of Finland's requirements (table II). Fruit is the second most important agricultural import from the United States, with an average value of 1.3 million dollars, supplying 82 percent of Finland's dried-fruit requirements and 33 percent of the imported fresh fruit (including kinds not grown in the United States). Imports of American flue-cured tobacco are valued at about a quarter of a million dollars, approximately 20 percent of Finland's total requirements. Grain, largely wheat and flour, are next in importance. Although the United States is the principal supplier of pork and lard, accounting for 96 percent of the total import requirements, the quantity imported is very small.

United States imports from Finland consist almost entirely of wood pulp and paper, which during 1936-1938 together accounted for about 9½ percent of the value of American imports from Finland. Agricultural products accounted for only 3 percent and consisted largely of cheese and various inedible animal products.

So far as agriculture is concerned, the trade between the United States and Finland is complementary to an unusually high degree. Finland imports about 6.4 million dollars' worth of American agricultural products, such as cotton, tobacco, fruit, grain, and lard, and exports to the United States only about half a million dollars' worth of agricultural products. The remaining exports are largely in the form of wood pulp and paper.

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## FRANCE TIGHTENS CONTROL OF ECONOMIC LIFE\* . . . . .

*On February 29, 1940, the French Government issued 17 decrees designed to control further the economic life of the country. The purpose of these new decrees is to balance production and consumption by stimulating the former and restricting the latter. This is particularly significant as an indication of the determination of the French Government to cease utilizing its economic reserves by producing enough each day to fill the needs of that particular day. The French people are being asked to tighten their belts and to accept for the period of the war a disciplined war life quite at odds with the economic and political liberalism that France is avowedly fighting to preserve.*

*Restriction of consumption:* Preparations for the rationing of foodstuffs are under way. All residents of France are required to register with their municipal authorities with a view to the subsequent issuance of ration cards.

In the meantime, the consumption of certain products will be restricted by decree measures, which will take effect on dates not yet announced. Bakers will be prohibited from making other than ordinary grades of bread and from using other than specified raw materials; restrictions will be placed on the amount of bread that may be served in restaurants and other public eating places; pastry shops and candy stores will be closed, and the sale of pastries in restaurants will be prohibited 3 days a week; candy manufacturers will be prohibited from making chocolate of other than ordinary grades; restaurants may not include more than a specified number of dishes in their menus and may serve only limited quantities and varieties of food to their customers.

Measures that have already become effective (March 1, 1940) include (1) the food laws to permit the mixture of up to 2 percent of bean flour in bread flour; (2) the prohibition of consumption of alcoholic beverages in public places 3 days a week and, after July 1, 1940, the restriction of sale of such beverages in retail stores; and (3) the further restriction of gasoline consumption by civilians.

*Larger agricultural production encouraged:* Simultaneously with the restriction of consumption, an attempt is being made to increase the production of foodstuffs. Thus, in order to facilitate spring sowing, a decree authorizes farmers to purchase special seed from the semiofficial organizations stocking wheat, known as *organismes stockeurs*, at the prevailing price for native wheat or to exchange, weight for weight, their own wheat against this seed wheat.

\* This is a summary of information cabled by the American Embassy at Paris.

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Another decree requires the Agricultural Production Service and the military authorities to cultivate the land inside the evacuated or army zones, and a special appropriation of 10 million francs (about \$200,000) is granted for this purpose.

To encourage mechanization in agriculture, a decree provides that the 50-percent reduction in duty on tractor motors and transmission parts enjoyed by farmers' syndicates and agricultural cooperatives be granted to individual farmers.

Price control increased: In order to prevent any price increases that may result from the new restrictive measures, further precautions have been taken. The prohibition against increase in prices above those in effect on September 1, 1939, as set forth in the decree of September 9, is extended to prohibit price increases resulting from modification of conditions of sale. This applies specifically to the substitution of prices of packed merchandise for prices of merchandise in bulk, the substitution of delivered price for price at point of departure, the addition of service or accessory charges formerly included in the gross price, the suppression or adjustment of normal discounts, rebates, or premiums (unless approved by the local Price Control Committee), or any increase in supplementary price in effect on September 1 for deliveries in small quantities or for differences in quality.

Encouragement of exports: While attempting to reduce imports, as well as the consumption of foreign and domestic products, the Government is endeavoring to increase exports of French specialties in order to increase its reserve of foreign exchange. A decree retroactive to January 1, 1940, provides for the refund of duties or taxes collected in France on materials of national or foreign origin entering into the manufacture of products exported. The same decree fixes the maximum amount of such refunds at 800 million francs (about \$17,000,000), although the amount may be revised during the quarter beginning July 1, 1940. Subsequent decrees will specify the products on which the duties and taxes will be refunded and will fix the rate of the refund and the methods of procedure.

Compulsory labor for women: Because of the mobilization of manpower, the lack of labor to carry on normal agricultural and industrial production is being felt greatly and new legislation is being adopted to increase woman labor in France. Thus, for the duration of the war the employment of a certain proportion of woman labor will be mandatory. The professions, Government offices, and private enterprises to which the new legislation will apply and the proportion of woman labor to be used will be set forth in decrees issued by the Minister of Labor.

A voluntary census of the available woman labor will be taken within 2 months and centers for the rapid training of women will be established throughout France. Should there be insufficient volunteer woman labor, a mandatory census of all available woman labor will be taken and the deficiency filled by compulsory methods.

Financial control: Several of the new decrees refer to the financial side of the Government's control of national economy. Commissions are created in each Ministry to examine all contracts and transactions and supervise prices. In the military services an economic service is created to suppress abuse, errors, and faults, avoid waste, and organize unused resources.

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A strict control has been established over expenditures in foreign countries. Each responsible Minister must prepare a preliminary account of expenditures of his department in foreign countries and of payments for private imports placed under his control. Pending the establishment of these preliminary accounts, expenditures in foreign countries will be fixed monthly by the President of the Council of Ministers. In order to facilitate the balancing of foreign accounts and returns, the Minister of Finance may designate the currency for payment of certain commercial exchanges with foreign countries. Further decrees will fix the conditions under which these regulations will be extended to the French possessions.

Previous legislation regarding payments of purchases from foreign countries is revised as follows: (1) Henceforth, the contracts requiring purchases in foreign countries or in foreign currencies signed directly in France by the interested administrations must be approved and viséd by the Minister of Finance; (2) contracts and transactions payable in francs that stipulate partial or total delivery to the Government of supplies from foreign countries must be approved and viséd by the Minister of Finance prior to the ordering of supplies.

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